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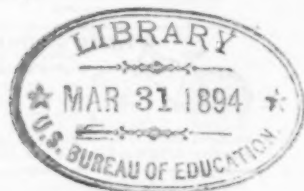
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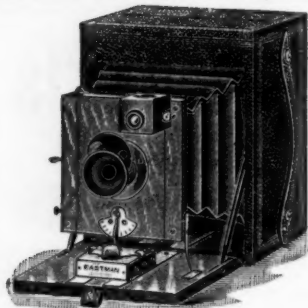
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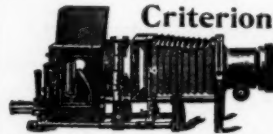
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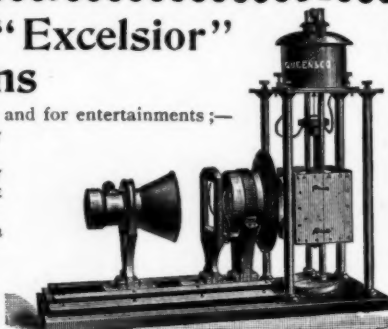
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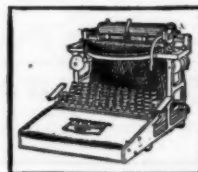
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THE SCHOOL JOURNAL

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The business department of THE JOURNAL is on page 340.

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WHAT should be my aim? This question must come continually before the teacher. If we look at the marksman we will see that he has some point that he wishes to hit, and that he employs his best judgment to put the bullet there. Further, of two persons who aim at the same point one will take into consideration things the other will not. Now the teacher of course must have in mind the effect of all that is done on character; but as this may seem nebulous except to the advanced thinker, it may be said that his aim must be (1) a better, broader, and more expressive use of language, (2) more readiness in doing, including here all manual work—penning, drawing, painting, etc., (3) a clear knowledge of number, (4) a cultivation of self (health, gymnastics, etc.) (5) a knowledge of people and their doings, (6) a knowledge of the world, plants, animals, (7) a knowledge of things, physics, chemics, devices, etc., 8 what ought to be done as right. All this proportionate to the age and development of the pupil.

It will not be enough to have obtained a good spelling lesson from a pupil; he must be looked at from these eight standpoints; the spelling concerns only one.

There are thousands of conscientious teachers who are doing their best to improve, but fail to reap the reward of well-intended effort by not pursuing the right course. Exclusive devotion to the study of the subject-matter of instruction makes them perambulating encyclopedias, perhaps, but it does not aid them to become better teachers. Neither can the copying of devices and manners of teaching produce any satisfactory results. The best plan is to take up the systematic study of the history, principles, method, and civics of education, and to supplement that by critical observations of the school-room practice of other teachers and the reading of sound and inspiring educational journals. The best results may be obtained by forming a class of those who are willing to take up the systematic investigation of the foundations of educational work, even if there are but two or three for the start; others will gradually join in when they become aware of the immense profit derived from it. The course if properly planned requires about four years of careful study; but every hour spent in this way will yield most desirable benefits and bring the student nearer to the high plane that all conscientious educators are striving to reach.

Life is so complex that but few things can be known thoroughly by any one individual. Yet many teachers indulge in flippant condemnation of the old and "moss-

grown" or of the new and "theoretical" in education without stopping to consider that either is of significant interest to the "coming man" now looking out of childish eyes upon that autocrat of destiny who gives him letters and words to pore over or who leads him into the delights of field study. The "progressive" teacher, who never gets the light of the past upon her work or her opinions, and the "conservative" teacher, for whom the past is plenty good enough, should each reflect that the children of the present generation have a right to the best of everything, whether old or new, that can strengthen them in the struggle for existence or beautify their lives. If it is vertical writing, try to be sure it is right before you teach it; try to be sure it is wrong before you condemn it. If it is tonic sol fa, listen well to both the pros and the cons and inform yourself as to what tonic sol fa has done before you form an opinion. Teachers seldom realize the full responsibility of their position or how the "They say," to which they contribute, rules the world. Superficial judgments, expressed in confident tones, have kept back manual training and every other good thing in human progress. They have also buried under undeserved obloquy many good things of the past of which a wiser humanity might still be enjoying the benefit.

"The good school," says Herbart, "is everywhere the same, whether it be moderately large, as the grammar school, or far-reaching as the high school and college, or as small and narrow as the elementary and village school. It always nourishes the same interests; it always leads to thinking as well as observation; it always points to the beautiful in the world and the sublime above it; it always awakens sympathetic participation for domestic and civic weal and woe. Therefore because it does this without omitting anything about it; because it does it uniformly without giving one thing the preference over the other—therefore it is a good school. The sole difference lies in the means which it employs.

"The glory of the elementary school consists in this, that it accomplishes much with little."

It is good practice to place noble thoughts before pupils at the beginning of the day. Not all deep sayings or gems of wisdom are appropriate. To ask a youth to recite the wisest words of Solomon will not make a Solomon of him. The words must contain a thought that comes within the youth's horizon. He must feel that it is true, or that it is beautiful or witty. It must have a pertinency to his present condition; too often it is a truth he will appreciate ten years hence. Here are words that may be placed on the blackboard, and read and transferred to blank books by pupils:

Not chance of birth and place has made us friends,
Being oftentimes of different tongues and nations,
But the endeavor for the selfsame ends,
With the same hopes, and fears, and aspirations.

Civil Government in Public Schools.

By DR. LEWIS G. JONES.

Some time since, the writer called the attention of the readers of THE SCHOOL JOURNAL to the importance of placing a greater emphasis upon the study of civil government, as a part of our public school curriculum, and of adopting a correct and natural method in imparting information on this topic. The importance of simplifying the study and adapting it to the understanding of pupils in the lower grades of schools was also emphasized, in order that no future citizen should be thrown upon society without at least an elementary and fundamental knowledge of the nature of our civic institutions and the sacred obligations of citizenship. The simpler forms of local government, it was agreed, should first receive attention, and be thoroughly understood, before an attempt is made to memorize or comprehend the written constitution of our country. The serious imperfection of a large majority of our text-books on civil government, which are little more than expositions of the United States constitution, was particularly emphasized.

Continued experience in imparting information on this subject has strengthened the views then expressed. The inaccuracy or ignorance of even college graduates upon questions respecting which every American youth should be well informed is surprising, and can hardly be accounted for, save by the supposition that it is the result of the wrong and superficial methods in the treatment of this subject which have been in vogue even in our higher institutions of learning.

If any persons are presumed to possess wide and accurate information upon all matters pertaining to our politics and government, it certainly should be the editors of our great metropolitan dailies; yet within two or three months, leading newspapers in New York and Brooklyn have been guilty of gross inaccuracy of statement concerning the provisions of our fundamental law as relating to questions of immediate political interest.

Commenting upon the recent adoption of an amendment to the state constitution in Colorado, whereby women have been admitted to participation in the suffrage on equal terms with men, the editor of the *Daily Luminary*—in the columns of which, we are modestly advised, "if you see a statement, it is so"—informed his readers that women in Colorado and Wyoming could now vote at all state elections, "but of course not at Federal elections. For example, they could not vote for members of Congress or presidential electors." The editor was evidently entirely oblivious of the fact that the Federal constitution expressly declares that the electors for members of the national House of Representatives "in each state shall have the qualifications requisite for electors of the most numerous branch of the state legislature;" and that as a matter of fact, each state has vested the right of voting for presidential electors in the same constituency. He was also unaware that women had actually voted for both members of Congress and presidential electors in the state of Wyoming.

More recently, in discussing the income tax, the accomplished editor of one of our most widely circulating evening papers made the unguarded and unqualified assertion that the United States constitution forbade Congress to prescribe any system of direct taxation; and based upon this statement an elaborate argument against the income tax. More accurate information would have prevented this serious misstatement.

Even the manufacturers of party platforms occasionally fall into errors which a moderate understanding of our political history would obviate. Every American should know what the "Monroe Doctrine" is and implies; but in an elaborate national platform of a leading party of recent date we have coupled in the same resolution a pledge of firm adherence to the principles of the Monroe Doctrine, and the assertion of a belief in "the 'manifest destiny' of the American Republic"! There seems to be a wide-spread conception of the Mon-

roe Doctrine as meaning only that foreign powers shall not be permitted to meddle with affairs on the American continent; but as originally proclaimed by President Monroe, and understood by the Fathers of the Republic, it contains both a warning and a pledge; a warning to European powers that we cannot consent to further colonization in America or interference with any of the Republican governments on these twin continents, and a corresponding pledge that we will not intermeddle with the affairs of any foreign nation. It is this pledge on our part which gives dignity, consistency, and effect to the warning, and which has made the Monroe Doctrine a charter of protection from international strife for seventy years. It pledges us to a policy of equity and justice in our foreign relations, and to a continental limitation of our ambitions for territorial expansion.

The term "manifest destiny," on the other hand, acquired a definite meaning during the filibustering era, from 1854 to 1860, and in connection with efforts for territorial expansion totally at variance with the principles of the Monroe Doctrine. "Manifest destiny" justified the Mexican war, and spoke in the Ostend manifesto. It reached out for Cuba, Nicaragua and the Hawaiian islands, and justified the United States in seizing by force territory which they might not be able to obtain by honorable purchase and treaty stipulation. The combination of the two conceptions in one affirmation of political principle indicates a confusion of thought rivaling that of the Vermont legislator, who was "in favor of the Prohibitory law, but agin' its enforcement."

These are only a few samples of popular misapprehensions concerning questions upon which every intelligent citizen should be accurately informed. If this information is not imparted in our public schools, vast numbers of our people will drift through life with only a superficial understanding of institutions, the custody and operation of which is a sacred obligation to every voter under our form of government. As far as possible, the lack of early instruction should also be met by supplementary classes in civil government for adult citizens. Such courses should constitute important features in all plans for university extension. Political clubs and literary associations should form classes for such instruction under competent teachers. One of the most hopeful aspects of the Woman Suffrage movement is the fact that the seventy-eight Equal Suffrage associations, composed of women, in Colorado, on reception of the news of the adoption of the suffrage amendment, resolved themselves into classes for the study of civil government, using John Fiske's admirable work as a text-book.

The pioneer work in this direction undertaken by the school of political science, under the auspices of the Brooklyn Institute of Arts and Sciences, has made a modest beginning in this effort for the elevation of our American citizenship. Let the good work go on, and penetrate to every city and hamlet in our land, for an intelligent citizenship is the ultimate dependence of our free institutions.

"The most reasonable objection that can be made against a system of thoroughly graded schools is that, in grouping pupils of similar attainments into large classes, the *individuality* of pupils is not sufficiently recognized. There is danger of the teacher's overlooking the importance of reaching the mind, heart, and will of *each* scholar in a large class; of relying too much upon the general machinery of class work. In primary work, reliance upon the class system, entirely, is fatal to good results. The teacher must go down to the level of each pupil, and draw out the powers, test their capacity for observation and comprehension."

The attention of children is not much under the control of the will, but depends upon the interest which they feel in the subject.—W. H. Groser.

Daily News as a School Subject.

By WM. ANDREW McANDREW.

The school book and the course of study will always be from two to twenty years behind the times, and those institutions which desire to keep closely in touch with the interests and progress of modern life are constantly alert to devise schemes, more closely to knit the threads of history, geography, and of all studies into the fabric of contemporary life. This paper has always stood for those features which vitalize and modernize education,



THE EDITORIAL STAFF.

and scarcely a month has passed which has not seen a portion of THE JOURNAL's pages devoted to the question of why and how the teacher and the school need to be informed of the important goings on in the world.

I propose to suggest a practical plan for presenting current events to a school, and to show the urgent need

scholarly to maintain or generalize the interest in the subject.

To my mind the first requisite in publishing news is regularity and frequency. The indispensable essential of news is its freshness, and so it should be presented every morning. Ten minutes of school time should suffice, and often all the real news may be read, if properly selected, in less time than that. The task of preparing this work, however, is no simple thing, to be dashed off in a few moments. It should be given the dignity of regular study; and for that reason I think a teacher should be assigned the conduct of the news recitation, and in estimating his proportion of daily school work, allowance should be made for this service as for a regular class. There are clippings to make, references to consult, pictures to find, and maps to display, requiring care, time, and intelligence of the highest order.

The organization of the news class falls to this teacher who should be at liberty to draw pupils from the entire school. Twelve editors at a time seems the best working force, and the teacher himself should be an active managing editor, being held responsible for the prompt and complete service of all his subordinates.

At the high school of Pratt institute, Brooklyn, N. Y., where the plan I am describing has been in successful operation for two years, each set of editors serves one week beginning Wednesday. In some schools a longer service might be desired. In the assembly hall, where the entire school gathers every morning for opening ex-



THE "KANSAS." Blackboard illustration from a Marine Item.

City and County.	State.	U. S. General.	U. S. Political.	Mexico, Canada, So. America, etc.	England.	France.	Germany.	Other European States.	Rest of the World.	Science and Invention.	Athletics.

of something of the kind. The fault with many plans of this sort has been not that they are too elaborate,



A "CITY EDITOR."

but that they are not sufficiently regular, systematic, and

ercises, are the new bulletins: an ordinary blackboard divided by vertical lines into the twelve departments of the journal, each column being about a yard wide and headed with printed titles, thus:

These titles may be put on permanently by a sign-painter, or more simply, by the pupils with chalk.

Half an hour or fifteen minutes before the opening of school, the editors for these different departments arrive and begin searching the daily papers, delivered at the school every morning. Six copies of the same or different dailies will be found sufficient for twelve pupils. Those localities which do not receive the papers until after the morning session has begun, can, of course, place this news class at the beginning of the afternoon, or take the alternative of being one day late. The *Scientific American*, which, by the way, should be taken by every school with a boy in it, and the illustrated papers, will furnish material for the science and invention department, and for the extra supplements to be spoken of hereafter.



OLD STYLE OF LAKE SUPERIOR STEAMER. Drawing from the "Science and Invention" column

As the editors are busy collecting news, each for his own department, the teacher in charge will find it necessary to give a good deal of advice as to what really

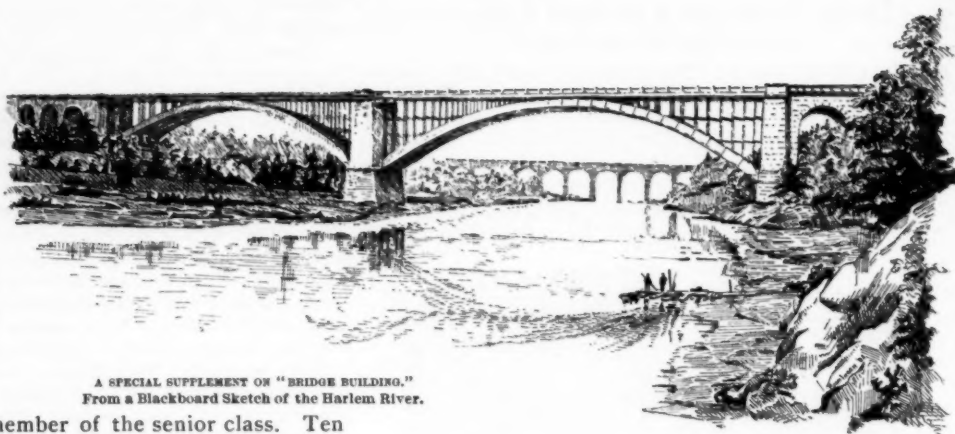
important news is. The tendency of the editors is to overload their columns with unimportant details. The writing of the main facts of the news upon the boards is another matter of great moment. The form, expression, punctuation, and penmanship should all be of the best; and to secure such it will be found of great advantage to have as proof-reader either a teacher or a capable member of the senior class. Ten minutes a day will do all the proof-reading required.

An instructive and entertaining adjunct to the daily news is a supplement board of pine or soft wood, upon which are pinned from day to day, illustrations of current interest, cut from the illustrated papers. Near the news-board, too, should be hung a map of the United States and one of the world, for quick use in locating places referred to in the news. At the Pratt institute a small reference library, consisting of an unabridged dictionary, a large indexed atlas, the Statesman's Year Book, and the *Brooklyn Eagle Almanac*, is a part of the working equipment.

The natural tendency of some boys and girls to illuminate the blackboards with sketches can be turned to good advantage. Localities should be shown by means of rapid outline maps; great inventions, new ships in the navy, even the features of great men, and innumerable things in which boys and girls take delight may be displayed from time to time by means of crayon drawings.

When, now, the ordinary opening exercises of the school are over, the announcement of the news of the day is in order. The editors rise and pass to their stations, and then, one after another, in a clear, loud voice, they give the announcements of the doings of the great world since the day before. There is no exercise more impressive: it breathes of the spirit of this wonderful age; here in a school-room, gathered by the magical power of modern inventions, the voices of Egypt, China, Europe, and America proclaim daily progress in the world's history; and the country boy listens to the voice of the Grand Old Man from over the sea. What a power for broadening the view of a whole community, for lifting it out of the rut of narrow provincialism and making it one with cosmopolitan mankind!

The reading of the news is attended with a necessary and most beneficial abundance of questioning. There is provoked a daily curiosity upon some of the most salient staples of current intelligence. What is the Wilson bill? What is a tariff? Why does the government need money? Who originate the bills for revenue? What is this Triple Alliance? Why do the French so compliment the Russians? And hundreds of other questions cannot be suppressed when once this news exercise begins, and so the threads of it at once lead back into the past of history and draw into prominence some half-forgotten matters of import-



A SPECIAL SUPPLEMENT ON "BRIDGE BUILDING."
From a Blackboard Sketch of the Harlem River.

ance. Often the teacher finds himself unable to answer an important query thus suggested, and a search must be made for the truth and authority. Special supplements, carefully prepared by selected pupils, and occupying five or ten minutes, are of value and interest. In this way a complete statement of the Hawaiian trouble, or the Brazilian revolution, may be made, or the plans of the new North river bridge presented. At Pratt institute, a board for bulletining the proper pronunciation of misspoken words adds another educational feature to the exercise.

There should be emphasized the fact that this news giving is work and not play. It must rise to the dignity of a recitation, and should be marked as such. The department of the school under which it perhaps most naturally falls is that of English, and every teacher can devise for himself the proportion of the English credits which the proper gathering, condensing, writing, and reading of the news should claim.

Definite rules, as in a regular newspaper office, may be made with profit and hung in a prominent position, where each new set of editors may be referred to them; thus:

Pratt Institute Daily News.

INSTRUCTIONS TO EDITORS.

Type. Write your news in a plain, large hand, legible across the hall.
Heading. Correct the date at the head of the column every day. The editor's name should show on his column during his period of service.
Style. Make your account interesting, short, and accurate. If there is nothing of importance to record, write the date and "No News."
Delivery. Read your news in a clear, audible voice: separate your words.
Special. Important occurrences of Saturday and Sunday should be included in Monday's news.
General Policy. Endeavor to make the *Pratt Institute Daily News* a bright, enterprising, and dignified publication.

A. M. Yarrington, Managing Editor.

Nor should the editors alone be responsible, but the hearers also. The writing should stay upon the board all day; many a furtive glance may awaken an interest in the matter written there. At set periods a quick, oral examination of the whole subject should be given. There is no better epitome of the period covered than that given by OUR TIMES. Thirty copies of this in a school will do wonders. The questions in every issue of this paper should be asked and credits given for correct answers. Thus a standard of what well-informed people at large are thinking about, is set; and fair views of the importance of events secured.

Having thus outlined the plan for news study as I have seen it carried on successfully in two schools, the Hyde Park high school of Chicago, and the high school of Pratt institute, Brooklyn, I can testify to its exceptional value as a trainer in selective reading, clear expression, vocal culture, self possession, correct pronunciation, and general intelligence.



GATHERING MATERIAL FOR "COPY."

Principal's Relation to his Assistants.

By A. W. EDSON.

Advance in all lines of school work, in management, methods, and results, is the order of the day; and the credit for this advance is due very largely to skilled supervision.

At the head of the school system in any town or city is the superintendent. Next in authority are the principals of the large schools. For these important positions, men are usually selected in preference to women (1) because of their (supposed) superior executive and disciplinary ability, (2) in response to a public preference for *paids*,—the impression being quite general that women are employed in the higher positions only when the town or city cannot afford men, and (3) because of the advantage to the child in having the benefit of a training at the hands of both men and women.

As to the first and second reasons for the selection of male principals, it should be said that all depends upon the person selected. Certainly a first-class woman is far better than a second-class man in any position. The third reason has weight, though here men can be employed as sub-masters if superior women can be obtained for the head of the building.

QUALIFICATIONS OF A PRINCIPAL.

The principal of a large school, grammar or high, should have a college education or its equivalent. He should be a broad-minded and progressive thinker, well up with the times, for as is the principal so will be the school. He should have a good presence, be a good executive, easily a leader of leaders, and before assuming so important a position as principal, he should have had successful experience in all lower grade work.

From the assistants' and pupils' standpoint, he should be considerate, courteous, sympathetic, sincere, impartial, an inspiration to all with whom he comes in contact.

Occasionally, small men, time-servers, spies, tyrants, or mere statisticians, are placed at the head of large schools; as a consequence they invariably make life a burden to teachers and pupils.

General Duties.—The principal should keep a close oversight of the buildings, the condition of the heating, lighting, ventilating, and general sanitary arrangements, the out houses, yards, and premises. He should see that the janitor understands his duties and attends to them. He should direct the admission and assignment of pupils, and assist in the organization and classification in all departments. He should see that books, supplies, and apparatus are provided promptly and generously.

Special Duties.—If the principal is to be held responsible for the conduct and success of his school, and if harmony in the teaching ranks is of much importance, the principal should be given a voice in the selection of his associate teachers,—at least no teacher should be placed in his building without his consent and hearty indorsement. It may not be expedient to trust the selection of teachers wholly to the principal, but on the other hand, the custom, as followed in many cities, of electing teachers without consulting the principal is wrong and sure to work irreparable injury to the school. Each individual teacher should be selected with special reference to the particular grade for which she is best fitted. Personal and political considerations should have no weight in the selection; merit and ability should alone be considered.

After the teachers have been elected, it is the business of the principal to see that each teacher is allowed scope for her own individuality, is given liberty and encouragement to work at her best, yet in accordance with correct principles and good methods.

The principal should encourage good teachers, strengthen the weak, give credit where credit is due,

unify and harmonize the work of different grades and subjects, avoid waste, eliminate hobbies, introduce new subjects from time to time, and keep his school in all departments strong and vigorous.

To do the work required and do it well, the principal must not be confined to class-teaching. He must be given liberty for a portion of each day to visit the several classes in the building, to acquaint himself with each teacher, class, and pupil, to know definitely just what is being attempted, and to detect weak points. Frequent visits by the principal quicken both teachers and pupils.

Teaching exercises and examination tests conducted by the principal, tend to open the eyes of teachers and pupils, to set them to thinking in new lines, to see their own short-comings, and to stimulate them to renewed and persistent effort. These exercises, however, should be managed with rare tact, lest the effect be to cast a reflection on the regular class-teacher. Young people are quick to draw inferences, and naturally think that any change in statement or method by the principal is an improvement on their every day instruction. This much should be emphasized,—*No suggestion, request, or remark should ever be made that will in any manner weaken the authority of, or confidence in the class-teacher.* No criticism should ever be made in the presence of pupils. It is contemptible business for a principal ever to say or do a thing that will at all exalt himself at the expense of the class-teacher, however weak or inefficient she may be.

In school, at his office, and at teachers' meetings, the principal should confer with, advise, criticise, and teach his teachers, aiming at all times to encourage, not to discourage, to strengthen and to build up. Given in the right spirit, at the right time, and in the right way, his suggestions will be well-received and prove most helpful.

A principal has well fulfilled his duties in all his relations with pupils and assistants, from a moral and intellectual point of view, when (in reference to teaching both by precept and example) it can be said of him as it was said of a man who for sixteen years was at the head of one of the largest high schools in New England, "He never rung a false note."

The Newspaper in the Class-Room.

By ELIZA MURPHY.

Scarcely a day passes that some question does not arise, which brings more or less discussion—questions which have direct bearing upon the lesson of the day or upon current events.

Instead of answering these questions which would result in one or two remembering them and the majority of the class forgetting all about them, I say, "Each one look up this matter—search the newspapers, magazines, or any book whatever, and bring in to-morrow morning anything which you have discovered."

The result is a vast amount of useful information on the subject.

Each pupil feels it his particular duty to contribute to the fund of information, and while his mind is thus employed the sensational items pass unheeded, the dime novel goes unread, his taste for good literature is cultivated.

The lives of great men, inventors, political questions, products and industries of all countries, noted cities and pictures relating to them, find a place in our scrap book.

Each new class has its own book and those of preceding classes are always valuable as books of reference.

JULY 10-13. Meeting of the National Educational Association at Asbury Park, N. J. One fare for round trip!

Geography.

(From the C. C. N. S. Envelope for Dec., 1893.)

- I. Why study geography? { Mental discipline.
Knowledge.
- II. What to study in geography?
 1. Appearance of surfaces within environment.
 - a. Plains, hills, valleys, gullies, deltas, islands, etc.
 - b. Springs, brooks, rivers, lakes, etc.
 2. Forces which are acting within environment.
 - a. Heat and cold { freezing.
thawing.
 - b. Rain, snow, dew, frost, hail.
 - c. Running water on { rivers.
and below surface { lakes.
underground. } { wearing.
building.
 - d. Wind: { wearing.
building.
 - e. Glaciers: { wearing.
building.
 - f. Life: { vegetable.
animal.
man.
 3. Forms and forces beyond sense perception.
 - a. Continents: { North America.
South America.
Eurasia.
Africa.
Australia.
Islands.
 - b. Oceans, seas, gulfs, etc.
 - c. Forces: { winds of globe.
ocean currents.
life.
- III. How to study geography.
 1. Observation of forms, the result of forces acting within environment.
 2. By use of symbols.
 - a. Pictures.
 - b. Spoken and written language.
 - c. Maps: { relief.
chalk-modeled.
flat.

The Effect of Education.

For some years there has been a claim by working-men (laborers with little money) that the advancement of the world has come from labor. The capitalists (laborers who have saved up some money) are accused of saying advancement depends on money; they do not say this, they do say the laborer cannot labor unless there is some one to furnish money.

The workingmen certainly, and possibly the capitalists, lose sight of the effect of education. The world cannot get along without that any more than it can without labor and capital. It is the trinity of Intelligence, Labor, and Capital, that really rules the world. Take the railroads and telegraphs, for example; they need intelligent men; the accidents that occur come very largely from ignorance. But the effect of intelligence is noticeable everywhere, and also the effect of the want of intelligence. Asking an orange merchant in Tampa, Florida, if it paid to raise oranges, he replied: "That depends on the man; I know of two men who bought land side by side; both are strong and healthy; one is now at the end of twelve years worth about \$40,000; the other is worth about \$4,000; one is intelligent; the other doesn't think ahead."

An intelligent or rightly educated man (and the term will be used synonymously here) can make money by farming in Kansas, where the Populists claim he cannot. A graduate of the Albany normal school went to Kansas and taught; he left teaching and began to farm it; he is worth a good deal of money. In a conversation lately, he said: "The great bulk of those who come out with us are ignorant men; they have worked on a farm, but have no head for business; they

don't succeed and lay it to the capitalists; they themselves are to blame."

An investigation into the production by labor now with that of fifty years ago (1840) has been published; it appears that the same number of men then that produced a thousand millions of dollars, now can produce double that. In Great Britain it appears that the work of 225,000 men produced \$600,000,000 in 1800; now their labor produces \$1,600,000,000. This is the result of education; from improved methods, inventions, knowledge of means of applying capital to produce results.

It is apparent that the SCHOOL is at the bottom of the world's progress. The best way to increase wealth and happiness is to increase education. Much might be said as to the meaning of the term education; all schooling is by no means education.

Intelligent Inquisitiveness.

By PRIMARY.

My children have developed a questioning spirit lately that is almost alarming. I am at a loss to account fully for the cause or causes of it, but I think it is owing partly to the fact that (though only in the Second Reader), they have been doing a good deal of reading other than the school reader, both in school and out of it.

We are fortunate in possessing a fine large cupboard built in the wall, which holds our supplementary reading matter; this consists of a few of Wood's Natural History Readers, a dozen of Geography Readers, two Robinson Crusoes, four or five books of the Chatterbox style, three Child Gardens, and numerous school journals which latter are valued by them chiefly for the sake of the pictures.

These books are allowed to the pupils whose work is done correctly and neatly and who are waiting for the slow ones. They are very much enjoyed, and I find my pupils always ready to contribute to a discussion on any subject by telling something they "read in a book."

This morning there was a fire in the neighborhood of our school before nine o'clock, consequently it was well attended.

We had been working very busily at an example in multiplication for about five minutes, when a hand was raised signifying that a pupil wished information, and the question came: "When the fire-reels are out how do they make the water get up so high?" This was more interesting than multiplication so there was a general cessation of pencil work, and it almost seemed as though they realized that this was their opportunity, for the questions came thick and fast—"What is that part they call the chemical?" "I heard the chief say 'Look out for the acid!' What is the acid?" "A man told me the acid would burn; why do they have it at a fire?"

"Do they put just a little acid and a lot of water?" "If they used up all the acid at a fire what would they do then?"

By counter questions we sometimes elicited sufficient information to satisfy the questioner; some of the questions I had to answer to the best of my ability, and when I thought I had my opportunity I said, "Now we will finish our example."

A little smile went round as if they appreciated the situation and everyone got to work vigorously.

There was no disorder, there was digression, there was also an intensely inquiring spirit which I did not feel like quenching, for I felt that to put them off until a stated time, and make it a regular lesson would take off all the freshness, and I think they worked even better after it.

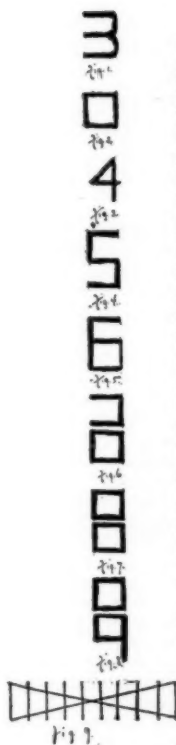
It makes a heaven-wide difference whether the soul of a child is regarded as a blank piece of paper to be written upon, or as a living power to be quickened by sympathy, to be educated by truth.

The School Room.

MAR. 31.—NUMBER, SELF, AND EARTH.
APRIL 7.—PRIMARY.
APRIL 14.—PEOPLE AND DOING.
APRIL 21.—LANGUAGE, THINGS, AND ETHICS.

The Origin of Numerals.

By JAMES C. MOFFET.



The characters by which our ordinary numerals are expressed were introduced into Europe from Arabia by the Moors when they invaded Spain, hence their name: Arabic numerals. They have been traced farther back to the sacred book of the Brahmans in India, however, and it is now generally admitted that they were invented by the Hindus. The figures we use to-day therefore should be called Indian and not Arabic. That the Arabians borrowed them from the Hindus is proved, among other things, by the fact that the former wrote the numerals from left to right after the manner of Sanscrit, which was directly contrary to the order of their own writing. The earliest example of Arabic numerals in Spain was a translation of Ptolemy dated 1136. Specimens of them were found in Italy a century later, and from there they spread to Germany, France, and lastly England where they were not generally introduced till the beginning of the 17th century. They are now in almost universal use among civilized nations.

The origin of decimal notation is thought by scholars to be found in the fact that the Orientals first learned to count on their fingers and thumbs. Ten characters were employed, originally called in England "digits," from the Latin word, *digitus*, a finger. The method by which the people of the East kept accounts in ancient times and noted them down was as follows:

One mark represented 1 finger or number (1) thus: | Two marks placed horizontally and connected by a single line stood for 2 thus: Z. Three was represented by 3 horizontal marks. Four was represented differently (see fig. 1). Four marks either in the form of a square or a triangle stood for 4. (see figs. 2 and 3). The figure 5 was made with 5 movements (see fig. 4) and 6 was easily formed by adding another stroke which closed in the figure. Seven marks representing 2 squares with 1 line wanting denoted 7, while the figure 8 was made by adding another stroke which completed the 2 squares: An additional mark to the lower square made a 9.

What we call a cipher was then a circle and it is supposed came from counting around the fingers and thumbs. It was in this way we got what is called our decimal, or ten, notation. Once around the hands was denoted by the mark | and the circle ○; twice around by the figure Z and ○; and so on.

Each figure that was added increased the others by 10. By placing any of the digits, or finger marks, in the place of the cipher to make the numbers between 10 and 20 we have the fundamental law of decimal notation established. This is the basis of our present arithmetical science.

The Roman numerals originated in as natural a manner. A simple series of strokes was at first used to represent numbers, but some method of abbreviation was soon needed, as it became too troublesome to write and read large numbers in this way. The expedient was then adopted of dividing them into lots of 10, each one being

checked off (see fig. 9). Soon 10 was represented by this check mark alone which consisted of 2 cross marks like our letter X. As larger numbers came to be used a symbol was invented for 100 like this: [which was probably at first a canceling stroke for 10 X's in the same way that X was originally a canceling mark for 10 single strokes. This mark gradually became a letter C because it could be made more rapidly and possibly because it was the initial letter of the Latin word *centum*, meaning a hundred. The letter M came to represent a thousand by the same process, the word for that number in the language of the Romans being *mille*.

The way a V came to denote 5 was by a cutting the ten mark, X, in half. [was similarly divided to represent 50 thus: | or L. To represent 4, the Romans soon found it easier to place a single stroke before the V (which meant 5 minus 1) instead of writing it out fully, IIII, just as VI meant 5 plus 1. In the same manner XL came to denote 40, instead of XXXX, and XC = 90 instead of LXXXX.

After the introduction of Arabic numerals into Europe they were sometimes mixed up with the Roman ones in a very curious way, MSS. of the 14th century being found that contained the numbers 11, 12, 13, etc., expressed by the characters XI, X2, X3, etc. The Roman numerals were too cumbersome and unwieldy to found a system of arithmetic upon and gradually gave place to the Arabic characters and decimal notation.

Sources of Information.

1. Encyc. Metropolitana.
2. Chambers' Encyc.
3. Pop. Sci. Monthly (1877.)

"Co-ordinated" Arithmetic.

By CLARENCE S. GIFFIN.

(There is not a study in our primary and grammar schools but affords much work for arithmetic, and each study will be reinforced by this concentration.)

Let us suppose we are studying in geography about the Middle States. When the arithmetic period comes, let us have an arithmetic lesson from the geography. Maps open at Middle States. Every inch on this map, boys and girls, represents one hundred miles. Now take your rulers. How many inches from north to south in the longest part? How many miles there? How long would it take you to go from the northern part of New York to the southern part of Maryland by rail at the rate of 35 miles an hour? How far from east to west in the widest part? How long will it take to walk the distance, going 20 miles a day?

(Have pupils find distances between cities, first in inches and then reduce to miles. Tell them about fast trains, the Empire State Express, the Pennsylvania Limited, and how fast they go. Then ask how long it will take to go from New York to Albany on the Empire State Express—to Buffalo. Verify by time table of N. Y. C. & H. R. R. R.)

If the fare is two cents a mile, how much will it cost to go to Albany? to Utica? How long will it take to go to Philadelphia on the 'Limited'? To Pittsburg? (The maps should first be drawn on an easy scale of one inch, a half, or a quarter to the hundred miles. As you progress the scale may be a little harder as $\frac{1}{2}$ of an inch to a hundred miles, or $\frac{1}{4}$. Then let pupils reduce the map scale to the scale for one inch and find distances in inches and fractions—rarely will you need smaller fractions than $\frac{1}{4}$ of an inch. When a little advanced you can have a very interesting and profitable exercise, and all the work be done by the pupils. Give them rulers and geographies.) Open to map of United States. How far from New York to San Francisco? How long will it take you to go from New York to Chicago at the rate of 40 miles an hour? A man started to ride a bicycle from Chicago to St. Louis at the rate of 125 miles a day, how long did it take him? (Tell them about the Fall River Line of steamers—then ask if you can ride by steamer 15 miles an hour, how long will it take to go from New York to Newport? Let these lessons in arithmetic come along with the corresponding lessons in geography. Is not such work better than to ask pupils such examples as—If a train goes 40 miles an hour, how long will it take to go 960 miles? The first has more life in it, it means more to them, it is a part of their other work, and arithmetic does not come to be associated in their minds as something utterly foreign to geography.)

(Language and spelling may also furnish work for arithmetic.) Count how many words in the first five lines of your composition. What is the average number of words per line? How many

lines have you written? Then about how many words? How many words would fill the page? Each composition this morning was eight lines long, how many pages would all the compositions in the class occupy? One pupil missed seven words, what was the average number of words missed per line. What per cent. did he miss? What fractional part? But all of our language is not written, much is spoken. How many words does an ordinary speaker use in a minute? How many in an hour? In $\frac{1}{2}$ of an hour? In $\frac{1}{3}$ of an hour? In 15 minutes," etc.

(More work of this kind and less mental gymnastics in reading, writing, adding, subtracting, multiplying, and dividing, meaningless hundreds of thousands, and millions will give us more life and interest, and I will risk the boy, whose arithmetical appetite is occasionally supplied with such work, to make as good a bank clerk as he whose teacher requires him to spend his time adding, subtracting, and combining, in all sorts of ways, meaningless numbers.)

Questions on United States Money.

By FLORENCE THOMAS.

How many different pieces of money have you seen? What do we call nickels, dimes, dollars, etc.?

Of what are coins made? What is the smallest coin made of silver? The three-cent piece is not made any more. John may write the name of the smallest silver coin made now. The word "dime" is written carefully on the blackboard class observing.

What is the largest silver coin? What coin is next in value to the dollar? To the half-dollar? One dollar is the same as how many cents? One-half dollar? Quarter of a dollar? Two-quarters? Three-quarters? The half-dollar equals how many quarters?

You may write the names of the three largest silver coins. Names written as before:

What coin is of least value? Of what is it made? You may write its name. How many cents make a dime? How many dimes make a dollar? How many dimes equal a half-dollar? Four dollars are equal to how many dimes? Five dimes are how many cents? What is a five-cent piece called? Of what is it made? (Name written.) How many nickels could you get for four dimes, etc., etc.

What gold coins have you seen? What is the ten-dollar gold piece called? Twenty-dollar gold piece? (Names written.)

Could the eagle be made of silver? Why not? Why is the penny larger than the dime?

Have you ever made "play money" by putting paper over a coin and rubbing with a lead pencil? How many would like to make me some before to-morrow?

Notice the words that are on the coins and see if you can remember them so as to tell us about them.

Are all dollars made of silver? Is a paper dollar really worth a dollar? No, not the paper itself, but the government has promised to pay a silver dollar for every paper dollar.

Why do we have paper money? Have you heard people talk about half a cent, quarter of a cent? "I bought sugar at $6\frac{1}{2}$ cents per pound."

Have we any coins with less than one cent? Do you know what people call one-tenth of a cent? (Word "mill" given and carefully written.) How many mills would equal a cent? Three cents? Half a cent would be how many mills?

Let us write some facts about United States money.

Mary writes as the class dictates at teacher's suggestion.

United States Money.

10 mills are 1 cent,

10 cents are 1 dime, etc.

What abbreviation is used for cent. Jane may write 5 cents, using the abbreviation.

You may make the sign used for dollar.

How did people come to think of that particular sign?

What letter does this part look like? "S." And if I join the two vertical lines by a curve at the bottom, so, what does that make them look like? "U." And U. S. stands for—?

Why do we call our money United States money? Do all countries use the same kind of money? Can you name some coins used in England?

Can any one make money who wishes? Who only has the right? What do we call the place where money is made? Where is the United States mint?

How many have ever visited it? Children relate their impressions and teacher gives a few simple facts about the coining of money.

There is a room in the Philadelphia mint where there are coins that have been collected from all over the world. Some are very old and have been buried in the ground for hundreds of years. (A general talk will perhaps follow here, in which the children lead. They will probably describe certain coins that they have seen, and perhaps bring them for the inspection of the class.)

What other substances besides metals have been used to make money. How long since people first thought of using money? How did they manage without money?

Topics in Physiology.

THE BLOOD AND ITS COURSE.

By E. W. BARRETT.

A fluid,
only liquid tissue
flows through body,
none in { hair,
 { nails,
 { teeth,
thicker than water,
not transparent like water,
large amount ($\frac{1}{3}$ weight of body),
taste (salty),
odor (faint),
temperature (100° F.).

AS
A
WHOLE

color { red,
 { bluish in veins,
 { oxygen makes it white,
 { colorless in lowest orders of animal life,
 { more pronounced in higher organisms,
hardens on exposure to air,
clot forms,
clogs up wound,
impure air impoverishes,
meaning of cold blooded animals,
" " warm-blooded "

SUPPLY
AND
COMPOSITION.

comes from lymph { transparent,
 { colorless,
 { corpuscles,
 { enters blood,
 { "lymphatic vessels,"
lymph from chyle { nutriment (dissolved),
 { milk-white,
 { fatty globules,
 { elaborated into lymph.
Corpuscles { red { give color to blood,
 { contain iron,
 { disk-shape,
 { derived from white,
 { very numerous,
 { very minute,
 { nourish tissues,
 { large in { birds,
 { frogs.
 { white { less numerous,
 { come from lymph,
 { more after meals,
 { change to red,
 { mere cells.
oval,
round (camel)
dog's like those of man,
5,000,000 in a drop of blood,
plasma { fibrin { iron,
 { soda, lime, etc.
 { serum { thin,
 { watery,
 { true blood.

COAGULATION.

meshes form from { fibrin,
 { corpuscles.
hardens from air,
depression in center,
serum collects.
advantages of { closes up cut,
 { prevents bleeding.
hastened by { heat (moderate),
 { free access of air,
 { rest,
 { whipping,
 { water.
retarded by { cold below 40°,
 { heat at 120°,
 { alkaline salts.

USES.

{ conveys food to tissues to produce force,
 { distributes oxygen from lungs (respiration),
 { brings materials to tissues for repair (nutrition),
 { absorbs wastes (excretion),
 { distributes and regulates heat over body.

ORGANS.	heart	shape, hollow muscle, 4 chambers, names { 2 auricles, 2 ventricles, facts about each. left separated from right (septum). valves { mitral, semi-lunar. motion or "beat." pump-like action, pericardium, sketch during recitation.
	arteries	convey blood from heart, round tubes, elastic and strong, coats { interior, middle (muscular), exterior (white fiber). nerves and blood vessels of their own, name a few { aorta, branches, pulmonary.
	veins	bring blood to heart, deep and superficial, valves, coats { inner, middle, outside. names { venal canal, pulmonary, jugular.
	capillaries	ends of smallest arteries. net work in { eye, lungs, mucous membrane. very small in brain, beginnings of veins.
CIRCULATION.		more capillaries than veins, more veins than arteries.
		complete in 30 seconds.
	rate of flow	{ arteries, 20 in per second, veins, 5 to 10 in. " capillaries, $\frac{1}{2}$ to 1 in., per second,
	observe flow in web of frog's foot with microscope,	
	pulse	{ blood injected into aorta. $\frac{1}{4}$ sec. before felt in distant arteries, 70 times a minute.
		left ventricle contracts, blood forced into aorta. aorta gives branches { to upper parts, to lower parts, goes all over body, collects finally in { upper vena cava, lower vena cava, blood returns to heart (2 large veins), laden with wastes (bluish), flows into right auricle, valve opens (name), enters right ventricle, right ventricle contracts, blood sent to lungs (pulmonary artery), purified by oxygen, impurities thrown off (carbonic acid gas.) blood returns to left auricle, valves open (name), left ventricle again contracts, left ventricle filled, entire process repeated.
		Heart gets repose between contraction and expansion, thus resting about 7 hours in the day.
		good blood essential to health,
CARE.	pure air necessary	{ school-room, sleeping apartments, avoid marching in school-room.
	wholesome food, sufficient sleep, frequent baths,	
	alcohol	{ many facts, veins enlarge, effect on vessels in brain, heart does extra work.

CARE. tobacco (effect on heart),

emergencies { cut artery { spurts,
 tying bandages,
 pressure toward heart.
 injured vein { flows steadily,
 bandaging,
 pressure farthest
 from heart.
 hemorrhages,

Read rules from books on accidents.

Observe cuts showing modes of bandaging on charts, issued by railroads. and in surgical works.

As this subject cannot be studied objectively in its entirety, pains must be taken to make it clear by means of much sketching, by charts and manikins. If thought best by the instructor, the heart of an ox for dissection may be introduced into the class-room. This can be obtained at a market or neighboring abattoir.

The circulation which seems so complex can be made clear quite readily, but each pupil requires much practice in describing it at the board, sketching roughly as he recites.

Any teacher can simplify the above topics, or add to them, as her grade of work demands.

With such a scheme the pupil develops the subject naturally and with order. It is he who does the work being directed by the teacher. The lesson opens with conversations and questions, as much information being obtained as possible by observation. In grades below the high school technical terms may well be dispensed with. Simple terms, even those given by the pupil, will answer. After the objective work is completed, several textbooks may be consulted. As the notes develop from day to day, oral recitations are held. Written work, and much of it with rough sketching, follows. The lesson ends with corrected compositions placed in note-books together with the outlines. The advantages of this method are apparent. The pupil classifies his work, concentrates his knowledge, learns how to go to work, and has something to refer to and preserve. He learns to write logically and naturally without rhetorical rules, and becomes accustomed to make prolonged recitations while standing, in the class-room. A desirable attainment and something always refreshing to witness.

Physical Education. VIII.

By E. B. SCARBOROUGH.

ABDOMEN.

NOTE.—Teacher should point out on the chart the location of the stomach, liver, and intestines. If there is no chart, see dictionary.

To the Pupils:

These are the three largest organs of the abdomen. They are not encased by a bony covering, as are the heart and lungs, and on that account they need a good, strong muscular wall. Nature has arranged for this by providing four layers of muscles for the abdomen.

The innermost layer extends around the body like a belt; the fibers of the next layer run obliquely to those of the first; the one outside of this slants so as to cross the second at right angles; and the fibers of the outer muscle run up and down. (Teacher draw line illustrating the four directions of the fibers.) This complete wall of muscle serves as a protection and support to the organs within, and when in a strong and healthy condition they also aid in the digestive processes going on in these organs. These muscles assist in the bending and twisting motions of the body.

But, like all other muscles of the body, unless they are exercised they become thin and flabby and will not serve the purpose for which they were designed. As a matter of fact the abdominal muscles are usually among the weak and neglected ones of the body.

A man who spends most of his time in an office, driving instead of walking, between office and home; or a student sitting over his books and taking no exercise, will find himself with just this kind of muscles, and perhaps will wonder why his digestion is so poor. Under these conditions fat is very likely to gather upon the abdomen, still further cumbering the already weak parts—a condition which might easily be remedied, or, better still, have been prevented, by exercise.

Lack of exercise is not the only cause of poor abdominal muscles. We have already learned that muscles cannot grow and be strong unless they are well fed from the blood.

You have often seen the circulation stopped in your finger by a string which was tied tight around it, and we can reason from this that tight clothing around the waist will also retard circulation and thus tend to starve the waist muscles. Muscles cannot be strong under tight clothing; on the contrary, they waste away until they become almost useless.

Posture has its effects on the abdomen as on other parts of the body. A humped position of the body brings a doubling up of the abdomen. We sit on the lower part of our spine instead of on the hip bones as we should; the ribs are crowded into liver and stomach and all the organs within are cramped in the performance of their work. Thus the digestion of our food is interrupted, and constipation, headache, and a whole train of evils result.

To the Teacher:

Recommend all forms of out-of-door exercise—walking, running, bicycling, rowing, tennis, etc.

Pupils may practice these exercises at home. Lie on the back and raise the legs to a right angle with the body. Also with the hands under the hips lie on the back, raise trunk to an erect position, then lower slowly without any help from the arms. This exercise may be made stronger by raising the trunk with arms extended overhead.

Pupils should be warned not to begin too vigorously. Mildly, at first and often should be the rule.

Laughing is good for the abdomen, as it shakes the organs and helps on in the peristaltic action.

Bending sideways, with hands on the hips, at back of the neck or overhead, is called a "liver squeezer." Care should be taken not to bend too far. With hands in same position as above, twist the trunk to right and left, keeping hips rigid and face in line of sternum. Also may twist and then bend.

A still stronger exercise would be commanded as follows: Right foot diagonally forward, place; trunk to right, twist; trunk to right, bend; upward raise; forward twist. At the command, "Feet, change, place," the right foot is moved back to its original position and the left is extended. The exercise is now repeated on left side.

The teacher should be careful not to confound exercises for the back with those for the abdomen. In a forward bend there is but little exercise for abdominal muscles. They simply start the body forward and gravity does the rest, while the *back* muscles must hold the body from going forward too far. In the backward bend the abdominal muscles do most of the holding.

Hemorrhages from the Nose.

Many children are subject to the nose-bleed, and in ordinary cases it should not be interfered with or checked, as it is usually nature's wise method for relieving the head from an excessive pressure of blood which might otherwise cause serious results. When, however, the hemorrhage is serious and lasts so long that it is weakening to the child, something should certainly be done to check the flow. In the first place try the application of cold, either by using very cold water, ice, or brass keys—ice being the most effective. If possible, keep the child's arms raised above his head for five or ten minutes at a time. This alone will often cause the bleeding to cease. If not, place a piece of ice wrapped in a cloth at the nape of the neck, and another one directly at the top of the nose between the eyes.

If the ice does not stop the bleeding, plug the nostril with styptic cotton. Every house should have a bottle of the last named article, as it will often arrest violent hemorrhages more quickly than anything else when proceeding from the head, and is also useful in dressing wounds when bleeding. If the styptic cotton is not at hand, the old-fashioned remedy, cowwebs may be used, but fine lint is still better. Many people use powdered alum, snuffed up the nose, which is good if the child can snuff it up without the effort increasing the hemorrhage.

Extract of hamamelis (witch hazel) should be taken internally in dose of from one-half to a teaspoonful from fifteen minutes to one hour apart, according to the severity of the case, and it may be taken occasionally between the attacks as a preventive or where there is great weakness of the membranes.—*Ex.*

The simplest remedy of all, however, and the most efficacious, is to insert a small wad of paper between the upper lip and the gums.

Birthdays of Noted Americans.

(We give a list of those who have made their mark in the United States; the list includes statesmen, authors, soldiers, etc. Ask the pupils to look up something about each in the cyclopedia, or any book that contains information in regard to them, to be used as the basis of talks on their respective birthdays.)

Washington Irving, April 3, 1783.	Edward Everett, April 11, 1794.
Henry Clay, April 12, 1777.	
Edward Everett Hale, April 3, 1822.	Thomas Jefferson, April 13, 1743.
John L. Motley, April 15, 1814.	
John Burroughs, April 3, 1837.	Lindley Murray, April 22, 1745.
James Buchanan, April 23, 1791.	
Alice Cary, April 26, 1820.	
Louisa Chandler Moulton, April 10, 1835.	Samuel F. B. Morse, April 27, 1791.
Gen. Lewis Wallace, April 10, 1827.	Gen. Ulysses S. Grant, April 27, 1822.
James Monroe, April 28, 1758.	

There is no surer way to check anger, mirth, or any other passion or sentiment, than to compel ourselves to assume the facial expression of its opposite. Delsarte, though as mystic, symbolic, and unsatisfactory an enthusiast as Froebel, with whom he might in many respects be compared, is yet no less than Froebel, a great educational discoverer, the perusal of whose fragmentarily published theories of expression could not fail to aid if they did not convince every teacher of reading. Even the belabored, artificial gesticulation of many school and college commencements is not without use in freeing and limbering the body to reflect the mind and heart truly before others.

—G. Stanley Hall.

Manufacture of Dresden China.

By M. ADELAIDE HOLTON.

Outline for a lesson upon an imaginary journey to the factories where Dresden china is manufactured.

This lesson has been successfully given in fifth and sixth grades. I. Introduction to consist of facts about pottery. The following are suitable to use in connection with many others:

The broadest term we can apply to anything made of baked clay is pottery. The savage tribes of all nations and ages have formed moist clay into receptacles, and dried or baked it by the heat of the sun. The Chinese were the original makers of porcelain, and their knowledge dates back to 3000, B.C. In Japan porcelain was made as early as 270, B.C. In the thirteenth century Marco Polo, a European traveler, visited the porcelain factories of China. The first piece of porcelain introduced into Europe was sent there early in the fifteenth century by the sultan of Egypt. The Portuguese were the first to import direct from China. Kinds of pottery are distinguished by kinds and purity of clay used in its manufacture; by the glazing and by the decoration. Earthen ware, the poorest kind of pottery, is made of cheap clay, and is baked at a low temperature. Stone ware is hard, dense, and compact. Porcelain is of finest quality, light, and often translucent. The Chinese knew the art of making this fine porcelain, and they guarded their secret carefully. After years of research the process of making fine china was discovered by Böttger, a German alchemist. He established a factory at Meissen on the Elbe, and founded the royal Saxon porcelain works in 1710. It is there that Dresden china is made. The building where it is manufactured is very low, is quadrangular in shape and built of yellow stone.

II.—*Entrance to the Factory.*—1. Porter in livery receives guests. 2. He conducts them to store-rooms and introduces them to clerk. 3. Clerk registers name and nationality of guests and receives the fixed fee. 4. Guests placed under the care of a guide.

III.—*Contents of Storeroom.*—1. These are all for sale. 2. Vases. 3. Clocks. 4. Toilet sets. 5. Groups. 6. Table services.

IV.—*Materials used in the manufacture of porcelain.*—1. Kaolin, 62 parts (will not burn). 2. Feldspar, 26 parts (will burn). 3. Broken biscuit porcelain, 2 parts. Broken biscuit consists of porcelain broken into pieces.

V. *Kaolin found.*—1. Near tin mines. 2. Limoges, France. 3. Meissen, Germany. 4. Cornwall, England.

VI. *Preparation of clay.*—1. Comes from mines in lumps. 2. Crushed fine under water in pug mills. 3. Powder floated through set tubs. 4. Feldspar ground and sifted. 5. Kaolin mixed with feldspar. 6. Mixture ground fine and sifted through sieves. 7. Mixed with water. 8. Packed in jars and stored in a dark place. 9. Air expelled by striking forcibly on zinc tables.

VII. *Operators.*—1. *Potters.* The potter at the wheel forms the clay into objects of different shapes. As each piece is fashioned it is separated from the remainder of the lump by a wire. 2. *Modelers.* Modelers are employed in finishing in clay their designs or else in molding from a given form. 3. *Retouchers.* Retouchers have to take the separate parts and put them together; they have to remove imperfections; to fill in anything that may be lacking. Retouchers have to serve six years' apprenticeship under the best instructors. Their tools are the finest kinds of brushes.

VIII. *Operations.*—The mixture made of kaolin and feldspar is formed by the potter and the molder into the article required. If the article is a complicated one every section is made separately. These sections are formed in gypsum molds, and are attached to the main part of the article by a liquid substance like the mass. The decoration is now put on by the retoucher, and any little defect remedied. The article is now placed upon a shelf in the same room to dry.

IX. *Baking.*—1. Oven is divided into three compartments. 2. Division walls three feet thick. 3. Interior space 12 to 17 by 10 to 13 feet. 4. China is placed in fire-proof clay pots called seggars. 5. Seggars placed in oven. 6. Remaining moisture expelled by heat from furnaces below. 7. China now hard and porous, and ready to take glazing.

X. *Trade mark.*—Crossed swords; painted on each piece with cobalt.

XI. *Glazing.*—1. Mixture of pure feldspar and lime. 2. Men stand before large tubs filled with the mixture. 3. One piece after another is dipped.

XII. *Rebaked.*—1. Glazed china is placed in oven again. 2. Doors walled up and fires started. 3. Fifteen to twenty-four hours required to bake the ware. 4. Semi-transparent effect obtained.

XIII. *Decorator.*—1. Chemical paints used. 2. Paint applied with brushes. 3. Many decorators at work. 4. Lace work a difficult pattern.

XIV. *Fired again* after decorated, then cooled in annealing ovens to prevent cracking. Now all paints, except gold, silver, and platinum, have become lustrous and smooth as enamel.

Those having gold, silver, or gold decorations are burnished by women who use an agate style; the ware is then ready for market.

Further information in regard to this can be obtained from the March number of *Scribner's Magazine*, 1878, also from any good encyclopedia, under the head of pottery, earthenware, china, and porcelain. For a successful lesson specimens of all the different kinds of pottery herein mentioned should be brought before the class. These can usually be borrowed from any large china store.

Language by Natural History.

By C. L. MARTZOLFF.

THE HORSE.

LESSON I.

1. To what classes does the horse belong?
2. Name the parts of the horse.
3. Why is the horse a quadruped?
4. What kind of a head has the horse?
5. What grows upon the top of the head?
6. What kind of ears has the horse?
7. What is said about their hearing?
8. How are his lips and teeth made?
9. What other animal resembles him in this respect?
10. How does the horse eat grass? The cow?

LESSON II.

1. What kind of openings has the horse for his nose?
2. What are they called?
3. Why has he such large nostrils?
4. What kind of a neck has the horse?
5. What is one side covered with?
6. Of what use is the mane to the horse?
7. What kind of legs has he?
8. What does the horse walk on?
9. How many toe-nails has he on each foot?
10. Why are they so hard?

LESSON III.

1. Why do horses wear shoes?
2. What kind of a body has he?
3. Of what use is the horse's tail?
4. What kind of a skin has the horse?
5. What are thick skinned animals called?
6. With what is the horse covered?
7. How often does he shed his hair?
8. For what is the horse used?
9. For what is the tail used?
10. What are his mane and short hair used for?

LESSON IV.

1. What does the horse eat?
2. What does the horse require a great deal of?
3. Are there more than one kind of horses?
4. What are draft horses used for?
5. For what are the Kentucky horses noted?
6. Why can the Texas pony travel so fast?
7. What are the smallest horses called?
8. For what are they used?
9. Write three statements about the horse.
10. Write two questions about the horse.

Facts to be developed by foregoing questions then reviewed by use of same:
A domestic animal—a quadruped. The parts of horse—head, ears, mouth, nose, neck, mane, legs, hoofs, body, tail. Description of parts. A long head upon the top of which grows a bunch of hair called the foretop—sharp ears with which he hears the least noise. His lips and teeth are so made that he can crop very short grass. The horse walks backward when he eats, the opposite direction from a cow. He has large openings for his nose—called nostrils. They are large to enable him to breathe in a great deal of air when he runs. He has a long graceful neck covered on one side by a mane which gives him a nice appearance and keeps off the flies. He has long, strong legs with which he runs very swiftly. He walks on his hoofs or toe-nails which are very hard, so he can travel over the stony roads without his feet getting sore. Shoes are put on the hoofs to keep them from wearing off. He has a beautiful well-formed body, a tail which adds to his appearance and with which he whips the flies away. The horse has a very thick skin, therefore he is called a pachyderm. He is covered with hair which he sheds every year. The horse is useful to work on the farm, drive in the carriage, haul heavy loads, and to ride upon. His tale and mane are used in making a kind of cloth for covering chairs, etc., and for stuffing horse collars, sofas, mattresses, etc. The hairs of the tail are also used to make violin bows.

The horse eats grass, hay, corn, oats, meal, and fodder, and he requires a great deal of water. There are a great many kinds of horses each of which has parts peculiarly adapted to the purpose for which it is used. The large Norman horse for draft purposes, the famous, wiry, Kentucky horses for racing, the little, scrawny Texas pony with light limbs and small body for traveling, and the little Shetland pony for the children, which is also used to work in coal mines.

(A REPRODUCTION STORY.) "OLD BET."

Old Bet is the name of an old horse that Aunt Jane owns. She is a white horse and she is very intelligent. When Aunt Jane

goes to the gate and calls her she will run as fast as she can and lay her head on my Aunt's shoulder. She eats apples and sugar out of my Aunt's hand. She can raise the latch of the gate with her nose. This she often does and comes into the yard to eat off the grass. But Aunt Jane does not like her to come into the yard because she spoils the flowers.

LESSON V. THE SHETLAND PONY.

The teacher will read and question thoroughly.

The Shetland ponies are the smallest horses. They are so very small that, often, a man can carry them. They come from some islands in the Atlantic ocean. There was once a Shetland pony named Sheltie. He was thirty-six inches high. Therefore he would only be as high as Monk, the St. Bernard dog! What do you think of a horse no larger than a dog? Sheltie was cream-colored, and he had a nice thick mane and his tale was so long that it almost reached the ground. He had very bright eyes and his friends thought him one of the finest ponies in the country. The gentleman who owned him had a little carriage and a nice harness made for him and then his two little boys would go out driving. Sheltie had also a little saddle and the boys would take turns at riding him. But most Shetland ponies are somewhat larger than Sheltie. They are used a great deal for hauling coal out of the mines, for they are so small they can easily go where other horses can not.

QUESTIONS ON SHETLAND PONIES.

1. How large are the Shetland ponies?
2. Where do they come from?
3. Tell about "Sheltie."
4. How high was he?
5. What are Shetland ponies often used for?
6. Would you like to have a Shetland pony?

Supplementary.

The Seasons.

These, as they change, Almighty Father, these
Are but the varied God. The rolling year
Is full of thee. Forth in the pleasing spring
Thy beauty walks, thy tenderness and love.
Wide flush the fields; the softening air is balm;
Echo the mountains round; the forest smiles,
And every sense and every heart is joy.
Then comes thy glory in the summer months,
With light and heat refulgent. Then thy sun
Shoots full perfection through the swelling year;
And oft thy voice in dreadful thunder speaks,
And oft at dawn, deep noon, or falling eve,
By brooks and groves in hollow-whispering gales.
Thy beauty shines in Autumn unconfined,
And spreads a common feast for all that lives.
In winter, awful thou! with clouds and storms
Around thee thrown, tempest o'er tempest rolled;
Majestic darkness! On the whirlwind's wing
Riding sublime, thou bidst the world adore,
And humblest nature with thy northern blast.

—Thomson.

Pussy Willow.

The brook is brimmed with melting snow,
The maple sap is running.
And on the highest elm a crow
His coal-black wings is sunning.
A close green bud, the Mayflower lies
Upon its mossy pillow;
And sweet and low the south wind blows,
And through the brown fields calling goes,
"Come Pussy! Pussy Willow!"
Within your close brown wrapper stir;
Come out and show your silver fur;
"Come Pussy! Pussy Willow!"
Soon red will bud the maple trees,
The bluebirds will be singing,
And yellow Tassels in the breeze
Be from the poplars swinging;
And rosy will the Mayflower lie
Upon its mossy pillow;
But you must come the first of all,—
"Come Pussy!" is the south wind's call,—
"Come Pussy! Pussy Willow!"
A fairy gift to children dear,
The downy firstling of the year,—
"Come Pussy! Pussy Willow!"

—Arbor Day Manual.

Editorial Notes.

N. E. A. Meeting will be held at Asbury Park, N. J. One fare for round trip.

We call attention to the article on Civil Government, by Dr. Lewis G. Janes, on page 326. It is a question of grave importance whether we are doing enough or taking the most forceful methods toward making intelligent *citizens* of our boys and girls. Flag-raising, patriotic songs, etc., are means of teaching our young people to love their country but they do not teach them how to preserve it. This can be learned only by sober study of the nature and functions of government. Before teachers will realize the vital need of a better and universal teaching of civics in the lower schools, some such work will have to be done in academic and normal courses as that now being conducted by Dr. Janes in the Brooklyn Institute of Arts and Sciences. Meantime this subject should receive more attention in the summer schools for teachers which have become so important a factor in our educational system.

We know of no school that is making so well organized a use of the newspaper as is the Pratt Institute, of Brooklyn. An article in our pages this week describes the method by which this subject is treated. The newspapers of late have offered anything but delectable reading, but, since they *will be read*, it is wise to teach pupils how to read them. Subjects of fleeting and sensational interest must be passed by for those of more permanent account. Governmental action, international relations, discoveries in science, etc., are the things the school selects for consideration from the news column, letting fashion and scandal alone. Pupils learning to seek the good will some day demand the good and newspapers will supply it in larger proportion.

A superintendent writes: "If a teacher tells me that she is a subscriber to EDUCATIONAL FOUNDATIONS I know she is earnestly striving to advance." He is right. The magazine is published for just such teachers who want to familiarize themselves with the history, principles, methods, and civics of education. Without a knowledge of these things there can be no advancement in teaching.

During the protracted illness of Dr. Jerome Allen, the students of the University School of Pedagogy have missed the inspiring presence of their dean, but he has taken care that a minimum of derangement in their studies should be entailed. His lectures on the history of education have been regularly sent and read to the class, who remember with pain the difficulty with which he sustained his last efforts when personally with them. It is now officially announced that Dr. Allen has retired from the deanship, the doctors having given little hope of his ever regaining a condition of health and strength that would warrant his resuming labors so heavy. Those who have known him through any considerable portion of his active life, especially, during his devoted consecration of marvelous energy to the establishment of the School of Pedagogy, will not wonder that the overtaxed strength has given out. His thousand friends, however, will be relieved to hear that he is resting tranquilly at home, surrounded by a loving family and almost entirely without suffering, either mental or physical. His trouble is a partial paralysis, which keeps him confined to one floor. He is appreciative of the care of friends, cheerful and chatty, as patient in confinement as he was heroic in action. It must be a dear consideration with him that the School of Pedagogy, the crowning achievement of his life, was secured of a permanent footing among learned institutions before he had to lay off the harness. THE JOURNAL will, in the course of a few weeks, give a sketch of Dr. Allen's labors in connection with this school.

The subscription list of EDUCATIONAL FOUNDATIONS is steadily growing. This indicates progress. The new type of teacher is not satisfied with a superficial knowledge of the principles governing educational work, but knuckles down to a thorough systematic study of them. There is no other publication aiming to aid teachers in this direction. EDUCATIONAL FOUNDATIONS was started because it was needed, not because the publishers expected that it would pay. Progressive teachers of every state in the Union and of several other countries are availing themselves of the aid offered by it.

The articles in THE JOURNAL and THE INSTITUTE on Vertical Handwriting have attracted much attention and have called forth many inquiries addressed to the publishers for a book or manual on the subject. In reply to other inquiries they would say to those interested that they can supply a book on the subject giving better forms of various kinds, illustrations of positions and other important matter. The authors are M. A. Newland, superintendent of the schools of Kingston, Ontario, and M. K. Row, principal of the training school of that city. As is well known the schools of Kingston were almost the first in America to introduce the vertical handwriting and under the direction of these two enthusiastic men, the experiment has been a perfect success. The book can be obtained of E. L. Kellogg & Co., for \$1.00.

"Outlines of Herbart's Pedagogics" is the title of a new book that will be welcomed by teachers who desire to become acquainted with the educational ideas of the founder of scientific pedagogics. Ossian H. Lang is the author. He has labored five years to present the difficult subject so clearly and concisely that every teacher will derive lasting benefit from the reading of it. The result is a most interesting volume full to overflowing with good things for students of education. These who are acquainted with Pestalozzi will be delighted to read how his thoughts have been developed by Herbart. Pestalozzi lacked scientific precision in giving his discoveries to the world and in consequence was misunderstood and misinterpreted. Herbart gave them lasting value by showing their true meaning and weaving them into his educational system. One must know the ideas of both men to get an insight into modern educational thought.

"A Mild Protest" is the title of an open letter published in the *National Baptist* and reprinted in *The Catholic Standard*. The writer objects to groundless attacks upon Roman Catholics at the hands of those known as Christian ministers and editors. In the closing paragraph he says: "Catholic schools are often spoken of as very inferior. The writer has some knowledge of them which leads him to rank them very high. The editor of the New York SCHOOL JOURNAL recently said in an editorial: 'It seems that every parochial school in the land takes THE JOURNAL.' As this journal is probably the best of its class, this is no mean recommendation."

There is a vast quantity of material that can be utilized by the intelligent teacher for essays and compositions. The exercises of Winthrop normal college on "Peabody Memorial Day," May 12, 1893, consisted mainly of short papers on "Historic Women of South Carolina:" (1) Those before the Revolution, (2) those of the Revolution, (3) since the Revolution, (4) of the Confederacy. Why cannot a similar course be followed by teachers elsewhere, thus bringing forward the prominent men and women of the county where the school is located.

A case is remembered where the teacher had compositions written about the leading men in his town, the merchants, physicians, lawyers, ministers, etc., were described; the pupils gathered the facts by interviewing the subjects. The reading of the compositions took place in a large hall to which admission was charged and enough money was obtained to purchase a piano. The persons described were all there. Let the pupils write about things near at hand. A little book compiled by the editor has many valuable hints on this subject.

Pedagogical Literature.

The growing demand for information regarding books on teaching is a most encouraging sign of the times. It indicates progress. The Columbian Catalogue issued by E. L. Kellogg & Co., describes all important books on education published in the English language. It is a reference book that no teacher can afford to be without, and can be obtained *free* of charge. There is no other source from which information concerning educational books of all publishers can be gotten. E. L. Kellogg & Co. keep in stock all the books mentioned there, and add new books as rapidly as published. They are issuing in addition to their Columbian Catalogue, an educational bulletin several times a year for information of teachers. The following is a copy of their list of latest books on teaching:

	RETAIL.	NET.	POST.
Rein, W. Outlines of Pedagogics	.75	.60	.08
Page. Theory and Practice of Teaching. [New Ed.]	.80	.64	.08
White, E. E. School Management		1.25	pp.
Hinsdale, B. A. How to Study and Teach History	1.50	1.20	.10
Shaw. National Question Book. [New Revised Ed.]		1.75	pp.
Rick. Object Less. and How to Give Them. 2 vols. Ea.	.90	.72	.08
Kellogg. Outlines of Psychology		.23	pp.
Lang. Outlines of Herbart's Pedagogics	.25	.20	.03
Compayre. Psychology Applied to Education	.90	.72	.08
Morton, Eliza H. Lessons on the Continent		.20	pp.
Giffin. Supplementary Work in Arithmetic			
Vol. I.—Lines and Diagrams		.40	pp.
Vol. II.—Area		.40	pp.
Vol. III.—Volume and Bulk		.30	pp.
Kellogg. How to Celebrate Arbor Day		.25	pp.
Blow, Susan E. Symbolic Education	1.50	1.20	.10
Sutcliffe, John D. Hand Craft		1.00	.10
Bechtel. Temperance Selections for Recitation		.30	pp.
Dean, C. The Science of Utterance		.50	pp.
Kirkwood. The School Maid's Sewing Folio		.50	.08
Taylor, Lydia E. Literary Work in the Sch'l-Room		.25	pp.
Nelson. Science Supplementary First Reader		.25	pp.
Burnett, Mrs. The One I Knew the Best of All	2.00	1.60	.12
Larsson. Text-Book of Sloyd	1.50	1.20	.15
Song Treasures. [New Edition.]		.15	pp.
Riverside Song Book		.40	pp.
Jackman. Number Work in Nature Study		.65	pp.
Newland & Row. Vertical Penmanship		1.00	pp.
Sinclair. First Year at School	.75	.60	.06
Fröbel; the Man and his Work		.25	pp.
Bennett. History of the Philosophy of Pedagogy	.50	.40	.05
Freyer. Mental Development in the Child	1.00	.80	.10
Larsson. Hand-Book of Sloyd	1.50	1.20	.15
Heinemann. Fröbel Letters	1.25	1.00	.10
Kellogg. How to Celebrate Washington's Birthday		.25	pp.

Editorial Correspondence. V.

THE STATE AGRICULTURAL COLLEGE.

The state agricultural college is located at Lake City. The 90,000 acres of public lands donated by act of Congress, 1862, having been sold, yields an income of \$9,000; Congress also gives annually, by act of 1887, \$15,000 to each state, and by act of 1893, a further sum of \$19,000, half of which is given to this college. There is a farm of about 100 acres of land. I found the buildings pleasantly located in a plain about one mile south of the village which lies 59 miles west of Jacksonville. There must have been a large and dense forest of oak trees here, and some immense specimens are yet seen. The main building is of brick, three stories high; around a broad campus are located the several buildings used for the purposes of the institution. There are about 180 pupils enrolled; this year young women have been admitted and 40 are in attendance. The course of study extends over four years. All the young men have military drill for one hour each day. There is a large building for manual training, wood and iron working being extensively carried on. The tuition is free; about half of the pupils are from the village; the rest from other parts of the state.

This is the most important educational institution in Florida, and is held in high esteem. The president is Oscar Clute, LL D., formerly president of the agricultural college of Michigan. I unfortunately came while Dr. Clute was absent in De Funiak Springs where he was lecturing before the Florida Chautauqua. The appointment of Dr. Clute has awakened the belief that his coming means a great deal for the cause of education and agriculture in the state. I found Dr. W. F. Yocum in charge, whom I had met while he was president of the state teachers' association four years ago. This gentleman has a firm hold of the confidence of the educators of Florida. He is a native of Ohio, a graduate of Lawrence university, Wisconsin, where he afterwards was professor of mathematics and natural history for some years, then president of the Fort Wayne college, Indiana, ten years. Removing to Florida he founded and directed the Summerlin institute at Barton. The Agricultural college sought him as its president; this post he resigned for the vice presidency at the beginning of the present year. This gives briefly the main events in the twenty-five years of devoted work of a most useful and successful teacher.

History and literature here are in the hands of Prof. James M. Stuart, who was president of the state association in 1891-92. Chemistry and physics are taught by Prof. J. J. Earle, and he is evidently doing his work in a remarkably able way. Prof. Whittier, the teacher of horticulture, has given many years to this institution and is full of enthusiasm as to its usefulness; Prof. Powers had a fine class in mechanical drawing; the iron work to be done in the shops is drawn to scale by his pupils. I was present at a military drill. It was an inspiring sight to see young men in neat uniforms and soldier caps marching on the broad campus. I noted that many of the young ladies wore scholar's caps (mortar boards) and looked well in them, too.

JASPER NORMAL INSTITUTE.

Taking the Georgia Southern railroad (the locomotive bearing a powerful electric light), I reached Jasper at ten o'clock in the evening. The town is a small one surrounded by somber pine woods. A new court house and a number of new houses showed that some impulse of progress was at work, and upon investigation this element turned out to be the Jasper institute which I had come to visit.

This school occupies two large modern buildings in the north-western part of the village; one building has just been completed and is to be dedicated on the 19th inst. with ceremonies in which among others Major Russell and State Supt. Sheats take part. The former it will be remembered, was the popular state superintendent for many years. I spent some time in listening to various class exercises and could not but mark the high character of the teaching. There is high teaching and low teaching and a good deal more of the latter than of the former is to be found; probably nine-tenths of the teaching of the country would rate no higher than 50 per cent., and much of it is as low as 10 per cent. The "little ones" have to take what is provided, be it good, bad, or indifferent.

Prof. J. M. Williams, the principal, is doing a work here that stamps him as a man of remarkable powers as an educator. Remembering that the country is new and the people poor, the fact that he has drawn together 250 pupils from the village, the farms in the vicinity, from nearly half the counties, besides Hamilton, and from Georgia beside, and that these pay tuition from \$20 to \$40 per year, it will be agreed that he has made a great success.

The sexes are about equally divided. There seemed to be about 50 young men and as many young women of good physical development, of fine appearance equaling our best normal school materials at the North. They showed good discriminating minds; took positions, and held them; were thoughtful and extremely orderly and self-reliant. Problems in plain trigonometry were capably handled; the work was placed handsomely on the

blackboard. And one of the features that attracted my attention in all the rooms was the neat and orderly placing of work on the blackboard; how often this is allowed to be done in a slovenly and scrawly way!

Prof. Williams has had an experience that has fitted him for the work he has undertaken. Graduating from the Danville, Ind., normal school, he taught in Illinois and in Kansas, mainly in institutions where teachers were prepared, carrying the heavy burdens, taking classes that other teachers either could not or would not manage successfully. Health demanding a change of climate he sought Florida, and began this enterprise four years ago, the citizens erecting a building costing about 3,000. Last fall they were obliged to erect another at a similar cost to meet the needs of the school. When the newness of the country and the feeble state of public sentiment concerning education are considered, the growth of the school is really remarkable. The assistant teachers here have the spirit of the principal. Miss Ice who has history, etc., is a graduate of Lebanon, Ohio. What an influence that noted school has exerted in this country! This lady taught like one who attended our summer schools and I was not surprised to know that she was an attendant at Chautauqua. Prof. Slater has the business department, penmanship, bookkeeping, etc.; Prof. MacRivers, physics, etc. Miss Strong was instructing a class to read music at sight. There is also a primary department.

Hard work is done here. The school exercises begin at 7 o'clock in the morning and last until 5 in the evening! This is necessary to enable a small faculty to teach so many pupils. Attention is given to parliamentary law, to current events, to pedagogy, to typewriting, telegraphy, etc. My visit here made it clear that a school conducted on high educational principles must be attractive to pupils.

LEAVING FLORIDA.

At this date, March 16, summer has really set in. The live oaks are covered with a dense growth of green leaves; the magnolias have put forth their magnificent blossoms; the Cherokee rose is decked out like a bride for her husband. The winter has been exceedingly mild in all Florida. To day it is 84° in the shade; there are points where it is 90°, but it is a mistake to suppose it is hotter further South, say at Winter Park, Leesburg, Lakeland, Avon Park, etc.; the only difference is that it remains evenly at the degree belonging to it.

All the teachers are now talking about the examination that they must undergo under the new law. The new state superintendent of schools is a man of a very progressive type. He determined to put an end to the holding of certificates by favor; so a law was passed canceling all the certificates in force, probably 3,000 in number, of which 600, or one-fifth, were supposed to have been given without an examination. Of course this is displeasing to the teachers.

It is a curious fact that teachers do not want higher qualifications to be imposed. The average teacher does not study after once getting a certificate; he hears others recite lessons, but gets none himself. There is something wrong in the general attitude of teachers; they are the least given to advancement of any class in the community. Why this is so, lies in the fact that so little preparation is needed to start with and that no additional attainments are demanded. There are teachers who have taught for 25 years and who have gone no further in any one subject than they were when they started. A little arithmetic, grammar, geography, and history was their capital at the outset and it is a little arithmetic, grammar, geography, and history now.

State Superintendent Sheats now proposes to furnish the county superintendents with the questions, after the method pursued in the state of New York; he aims to build up a body of ably qualified teachers and to drop out all that are not willing to study before they are licensed, and after also. Those now holding certificates are studying hard so as to hold their positions. The result of this energetic move will be looked for with interest. He is probably the only state superintendent that has enough nerve to make such a bold move.

Shall teachers seeking a more favorable climate come to Florida? I have had several letters asking me to procure positions for their writers. I could only turn these over to county superintendents; in some counties there is a demand for good teachers, but the wages here are quite low; \$25, \$30, \$35 are paid in rural districts—\$35, \$40, \$60 are paid in towns and villages. Those who desire to come here should address the county superintendents, as they employ all the teachers.

And here I want to say that one who thinks of coming here should know something definite of Florida before settling; some counties are much to be preferred to others; all are sparsely settled. I was much moved by a conversation with a lady who had a school in a very plain unpainted building made of rough boards without plastered walls. The surroundings were the somber pine woods; stretching out on all sides, without a fence, were the sandy plains. Her boarding place was in a house just like the school building; beauty there was none. She could not erase from her mind the hills and valleys, the ringing brooks, the apple trees bursting into bloom, the walk home from school over grassy

carpets--and here all was so different. I found a change of climate had been a necessity and so could but suggest that she should seek a school in some pleasanter neighborhood.

Over against this I remember one just on the edge of a prosperous settlement. The house was painted, the inside walls ceiled up with pine; it was February and yet the windows were open and on every breeze came the perfume of orange blossoms and the song of the mocking bird. While there is much, very much, that will disappoint one accustomed to the hills and valleys, to the rushing brooks of the North, yet I found very ambitious and happy teachers here in Florida.

Eight years ago I came to Florida very much prostrated, in fact, it seemed to most of my friends that I was past recuperation, but the wonderful sunshine and the entire rest proved better than medicine. I cannot but recommend Florida. And then I have found here so many earnest teachers. Florida is the home of the New Education. In many ways more is to be hoped for here than in any other state at the South; and the reason is that her school system practically has been constructed within the past ten or twelve years; it has been constructed out of new materials and by those who look at education from the modern standpoint.

Teachers of Florida, follow the banner of your new state superintendent as you did the eloquent, the impulsive, and the ardent Russell! His long experience in the pine woods of Alachua county has made him competent to be your leader. He asks you to come up on a higher platform; would that every state superintendent would put up double-wire barbed fences against those who desire to get access to the school-rooms in the easiest way possible. Co-operate with every one who says to you, "Come up Higher." To those who have met me with such hearty greetings I regretfully say farewell. But I shall not stumble over snow-drifts in the North; the spring has broke there; and I feel like an idler here. I must return to the paved streets and the clanging of bells and the various dins of city life.

A. M. K.

Eight years ago Harvard made a change in the requirements for admission to the freshman class, allowing applicants to omit Greek and to substitute other qualifications, including advanced mathematics. The effect seems to be doubtful. President Eliot reports that the plan has proved acceptable to but a small percentage of candidates—to three per cent. in 1888 and to seven per cent. in 1893. He attributes this to three causes: firstly, the plan requires advanced mathematics, for which only a very few boys have a taste; secondly, the time required to master the substitutes for Greek is longer than the time required for Greek; and thirdly, a greater number of hours of examinations is exacted. In other words, it is more difficult to enter Harvard without Greek than with it. President Eliot concedes that to this circumstance may be due the fact that those who have thus far entered without Greek, have won an academical standing which is, on the average, above that of those who entered with Greek.

It is reasonable under these conditions to expect some readjustment of the requirements and President Eliot intimates that this will probably be made before long. In order to thoroughly test the advisability of making knowledge of Greek a condition of matriculation, it would seem that no advantages should be offered to those preferring Greek to the more difficult examination in the substitutes for it. The question whether the study of languages affords a better training than that of advanced mathematics has been discussed for many years, but no solution has been reached. The experiments of colleges in this direction may contribute to its final settlement.

President G. Stanley Hall's book on "Contents of Children's Minds on Entering School," published by E. L. Kellogg & Co., New York, is rapidly attracting the attention of English teachers. The *School Guardian*, England, commenting upon the book, writes:

"Mr. G. Stanley Hall has found that out of 100 children in Boston the cow was known to only 81%, the pig to 47%, the ant to 65%, the bee to 50, the butterfly to 79%. We strongly suspect that there are parts of London where the corresponding percentages would be much lower—parts where the milk comes by rail and where the sight of a pig would occasion as much childish wonder as a gorilla—parts where the ant is as completely unknown as the ornithorhynchus, where the bee never comes in futile quest of flowers, and where butterflies never tempt the little children to chase them. The value of such inquiries as Mr. Stanley Hall's lies in their enabling us to enter more fully than we usually do into the extent of a child's, and particularly a town child's, ignorance of things which the youngest child is supposed to know. Some of the inquiries relate to the ideas children have of the stars, of clouds, of the sun and moon, and of other natural objects and phenomena. To these we attach less importance, for, from the nature of the case, the answers must be mostly either unreasoned conjectures or parrot-like repetitions of the traditional science of nursemaids. A more valuable class of inquiries relate to the meaning of familiar words, but here we are not to infer absolute ignorance from an inability to explain such words, or from inaccurate explanations. A child often understands a word in its organic relation to other words which would be utterly incapable of defining it. When will our teachers at home set to work to collect from their daily experience illustrations not merely of the contents of children's minds at different stages of development, but of the ways in which those contents were acquired?"

There are two Korean students in American colleges; one is at the University of Pennsylvania, the other at Roanoke college, Salem, Va.

The *Iowa School Journal* and *Country Schools* have been consolidated into *Iowa Schools*. The country school feature is still retained in the combined publication.

Harvard will be the first of the large universities adding military science and tactics to its course. It has asked the War Department for the detail of an army officer as instructor in the new department. Lieut. Wirt Robertson, of the artillery, has been selected. He will report at Cambridge this summer.

The handsome building which is to be the new home of grammar school No. 23, was thrown open for public inspection last Saturday. It is furnished throughout with single seats and has a capacity of 1,700. The apparatus for heating and ventilation is of the most approved kind. The school will be opened for the reception of pupils on Nov. 7. Mr. Hugh O'Neil is the principal.

The *Times-Union*, of Jacksonville, Florida, of March 17, refers to a "lecture delivered by A. M. Kellogg, of New York, before a large audience in the hall of the new school building," at Jasper. This paper takes special pains to keep its readers posted on school news in the state; it is very ably edited and has a wide circulation. Not only does it give news, but discussions as well.

The schools of Superior, Wis., have made marked advancement under the administration of Supt. A. W. Rankin. One of the results is that there is now eighty-eight per cent. of the school population enrolled in the schools. We know of no city that can show up a better record. Superior, Wis., employs ninety-three school teachers and fourteen kindergartners. This proportion indicates progress.

The investigation of the hazing outrage at Cornell university, which resulted in the death of a woman, is slowly progressing. Judge Forbes before whom the case is being tried is determined that it shall be sifted to the bottom. It is understood that the whole investigation depends on the testimony of student Taylor. If he testifies there will be an indictment. Those who know him say that he will never divulge the secret he possesses. He is at present confined in prison, Judge Forbes hoping that the confinement will have the effect of breaking his silence.

The Georgia State Teachers' Association will meet this year on Columbian island, the first week in July. During the year a committee of the association has raised sufficient funds to construct a handsome auditorium on Cumberland to be used for its annual meeting. The building will be ready for the July meetings. Owing to the success of this enterprise there is much enthusiasm among the teachers, and it is confidentially expected that this year's meeting will be by far the largest and most interesting in the history of the association.

The governments of Manitoba and the Northwest recently passed legislation abolishing Roman Catholic separate schools, thus virtually compelling all children of Catholics to attend the public schools. The Catholics appealed to the privy council of England, but that tribunal declared the government had power to pass such legislation. As a last resort Archbishop Taché forwarded a memorial to Lord Aberdeen, governor-general of Canada, praying him to disallow this legislation. The archbishop contends that at the time the Dominion was organized, Roman Catholics were promised that their schools would not be interfered with.

The schools of Germany are greatly celebrated for their excellence in matters concerning instruction. But the results of the government and training of children are not what one would expect. Statistics show that there are more suicides in Germany in proportion to the population than in any other European country. The yearly average for some years past has been 2.71 to every 10,000 of population. In France, Austria, England, and Italy the average percentage for the same period has been 1.87, 1.63, .76, and .46, respectively to every 10,000 population. Whatever the minor causes may be, lack of moral strength of character must be considered the main one. An education that does not produce strong characters is defective somewhere.

Michigan.

The twentieth annual meeting of the association of city superintendents will be held in Lansing, May 10 and 11. Supt. J. A. Stewart, Port Huron, president.

A teachers' institute will be held in Detroit, April 4, 5 and 6. The following gentlemen will be in charge, Col. Parker, and Prof. Jackman, Chicago; Dr. A. S. Draper, Cleveland; Dr. R. G. Boone, Michigan state normal school; Dr. B. A. Hinsdale, Ann Arbor.

Supt. C. O. Hoyt has been re-elected to the Lansing schools for a term of two years at a salary of \$1700 and \$1800.

The executive committee of the State Teachers' Association, has arranged for a summer meeting at Huckleby Park, and also to hold the winter meeting at Lansing, December 26, 27, 28.

The American university at Washington has received from a New York woman, through Bishop John F. Hurst, \$100,750 for the endowment of a professorship. A short time ago it received a gift of \$100,000 from a man in Ohio. Both donors refused to allow their names to be made public.

Berea College, Ky.

(SPECIAL CORRESPONDENCE.)

One of the most interesting of the numerous schools of different grades for both races in the Southern states is Berea college. This institution dates from a period before the Civil war. It was founded by Rev. John G. Fee. During the war it was discontinued, but found itself on its legs soon afterward. On our third visit, between 1880 and 1894, we found the school had steadily increased and now has become one of the most solid educational foundations in the state; with several hundred acres of land; a group of half a dozen handsome college buildings and an enrollment, this year, of five hundred students. Berea is probably the only large educational institution in the Southern states where the two races white and negro are educated together with apparently no more friction than in the schools of the North. This is probably due to the fact that the majority of its white students are drawn from the Eastern hill-country of Kentucky, where slavery was almost unknown. The first president was one of the famous Fairchild educational family. The present executive officer, Rev. Wm. G. Frost, was recently professor in Oberlin college. The faculty is of unusual ability.

Berea is independent of denominational control; broad and liberal in its administration; and includes all departments, from a flourishing primary school to the college. During the last year industrial education for boys and girls has been introduced.

The institution is situated on a plateau eight hundred feet above the sea-level, enclosed in a beautiful panorama of hills, with a delightful climate. It is one hundred and thirty miles south of Cincinnati, midway between Ohio and Tennessee. Through these mountain gaps Daniel Boone led the first emigration to Kentucky, more than a century ago, and the whole region is rich in historical associations.

But the chief interest of Berea college for the general educational public is its intimate relation to the great central Appalachian mountain region, midway between the Atlantic and the Mississippi, which, after three hundred years of obscurity, is now rapidly coming into notice as one of the most interesting regions of the original republic. Few of the readers of THE JOURNAL perhaps realize that here is a region as extensive as the German empire, more than five hundred miles in length and at its widest area, two hundred in breadth; extending from Harper's ferry, West Virginia, to the extreme southern mountain ranges visible from Atlanta, Georgia, and Montgomery, Alabama. This vast domain includes portions of the two Virginias; an immense area in Eastern Kentucky and Tennessee and Western North Carolina; a section of South Carolina and nearly one-third of Georgia and Alabama. Its central mountain ranges contain a score of peaks as high as Mt. Washington and more than one surpassing it. Agriculturally it is Vermont and New Hampshire removed five hundred miles southward, to perhaps the most attractive climate east of the Rocky mountains. Its forests are boundless, with many rare varieties of woods. In the extent and variety of its mineral resources it is unsurpassed. Professor Shaler, of Harvard university, declares that, in its resources, it is not surpassed by the German empire.

In this wonderful region is to be the theater of the next great campaign of Universal Education in the country. In no part of the Union is there, to-day, such a call for a great revival of everything called education as in this region. But of all the schools that have undertaken to grapple with the mighty problem of lifting up this immense region to the higher civilization, none is so favorably situated, or to-day in so good condition to accomplish a great work, as Berea college. Probably nowhere in the United States would an endowment of a million dollars do more for the great cause of Universal Education than just here.

M.

Louisville, Ky.

The education of the colored children receives careful consideration from the Louisville school board. The course of study in the high school has been changed from a three years' course to one of four years.

A fine new brick building erected in the past year is now occupied by the Eastern colored school. It is finished in natural wood, has speaking tubes from each room to the principal's office, and is heated by steam. There are 900 pupils and 22 teachers, beside Mr. W. T. Peyton who is the principal of this school.

The evening schools closed last week.

This year, by suggestion of Mr. Rudolph Finzer, Drs. Dunlap, and Geo. F. Simpson, there was instituted a course of lectures for improvement of the colored teachers. Prof. W. H. Bartholomew, principal of the girls' high school, and Prof. E. H. Mark, of the boys' high school delivered lectures each week, and Profs.

Peyton and Meyzeck, of the colored schools explained advanced methods of instruction. The lectures were of the highest order and their helpful influence is easily observed among the 100 colored teachers in the city. All were gratuitously given.

The colored schools in Louisville are in excellent condition. The teachers are earnest and progressive.

Brooklyn, N. Y.

On Thursday afternoon last, a body of people, too small to be termed "an audience," met at the Art Rooms in Montague street to listen to a lecture by Mr. Hamilton W. Mabie, associate editor of *The Outlook*, on "The Creative Elements in Education." But the lecture was given under the auspices of "The Brooklyn Institute,"—one of a series belonging to the "kindergarten section" of the department of pedagogy. There are upwards of 2,000 teachers in Brooklyn, and a great number of them are members of the institute.

Even had Mr. Mabie been unknown to them, as a writer of the most delightful essays, it would seem as if even a very mild interest in educational matters would have resulted in the gathering together of something more than a mere handful of teachers. A number of people, not of the pedagogic profession, to whom Mr. Mabie's weekly column in *The Outlook* is a constant source of delight, stayed at home with the idea that the small hall would be filled to overflowing with eager and expectant teachers, to hear an exposition of so attractive a subject. It is needless to say, that since learning of the number of empty seats, the regrets have been many and deep.

It is a pity that in such cases the example of the king of scriptural fame, who, when the expected guests did not come to his wedding feast, invited the people from the highways and byways, could not be emulated. There must be many a one hungry for truth who would be glad to sit at so royal a feast.

Why did the bidden guests not come?

One of the small number present, herself "Head of Department" of a well known school, in commenting upon their absence, said:

"One would suppose that at least a small proportion of teachers would be interested in a subject which so vitally concerns their own interests.

"I called the attention of my teachers to-day to the fact that this lecture was to be given. Very few of them, even those who are members of the institute, knew anything about it. Is it any wonder that there are so many incompetent teachers?"

New York City.

The Le Clere scholarships of the School of Pedagogy have been awarded to the following students: Charles M. Light, Kansas; James C. Black, Indiana; E. C. Lavers, Pennsylvania; Ernest Richard, New Jersey; and Lizzie E. Rector, New York.

The closing lecture on Herbart and his Principal Followers, by President Charles DeGarmo, of Swarthmore college, before the School of Pedagogy, will be delivered in the chapel of the university, Washington Square, on Saturday, March 31, at 11 A. M. Those who have not heard the previous lectures in the course have missed a great treat. On the four April Saturdays President James MacAlister, LL.D., of Drexel institute, will give lectures. His subjects will be: Comenius, Rousseau, Pestalozzi, and Froebel. All who are interested in education are invited to attend.

Mr. Mathew J. Elgas, principal of school No. 69, who has long advocated the disuse of tobacco not only among boys but men and is himself an example of his precepts, has done much excellent work among his boys in this direction.

There has for some months been an understanding among the boys but no definite culmination until last week when their Anti-Cigarette Society was organized and the first election of officers took place. The president is taken from the first grade and the other officers from the next three grades. Almost all of the six hundred boys in this school have signed the pledge not to smoke before they are twenty-one years of age.

Commissioner Hubble has shown his approbation by giving to this school a gold medal, which is to be worn by the president of the league while the school is in existence. The other members are to wear small silver medals which they provide themselves.

A member of the legislature has already taken some steps to cause a bill to be passed including the following restrictions:

"Every dealer in cigarettes will be fined fifty dollars yearly. He will sign a pledge to the effect that nothing in tobacco or paper shall be used that might be detrimental to health." (Is it not pretty well understood that all tobacco is detrimental to the health of the smoker?) This shall be under the supervision of the board of health. Again, no cigarettes shall be sold singly,—which will veto the small boy and his penny smoke.

But the anti-cigarette leagues among the boys themselves will, if the idea spreads sufficiently, prove the strongest influence against the formation of the tobacco habit.

State Supt. Crooker's Annual Report.

Supt. James F. Crooker's second annual report which was transmitted to the New York legislature two weeks ago, is sure to attract unusual attention. It takes up some questions that are troubling the school officers of a number of states, but which, so far as we are aware, have not been discussed in a public document of this kind for many years. This refers particularly to that part of the report which is headed

THE ESSENTIAL ELEMENTS OF EDUCATION.

Referring to his first annual report which pointed out "the tendency towards using a considerable amount of the public school moneys for what may be termed the ornamental branches of education," Supt. Crooker writes: "My observations during the past year have confirmed my opinion that this practice is extremely prejudicial to the true interests of public instruction. Were all the ordinary educational needs of the people of the state supplied, and the elementary schools advanced in number and efficiency so that every district would have the proper facilities, there might be good reason for devoting large sums for advanced instruction. But I have become more convinced that there are very many country districts requiring additional state aid for their schools, which their lack of means has retarded and kept far behind the educational progress of richer and more favored districts. The reports of many of the school commissioners confirm this impression.

"The first duty of the state in educational matters seems to me to be to provide sound, useful instruction to all children within its borders; such instruction as will lay a firm, thorough foundation for any structure of education which time and opportunity may afterwards design.

**** It is to the thousands of children whose education is necessarily limited to the elementary classes that the state must look in the near future for the mass of its citizens, not to the comparative few who are enabled by more fortunate surroundings to graduate from high schools, academies, and colleges.

"To attain success in the public schools and to expend to the best advantage the liberal appropriations made by the state for education, it appears to me that there is one only practical course and that is thoroughness in every branch of instruction. The tendency in many schools is unfortunately to attempt too much without a thought as to doing the most necessary part of the work well. It is chargeable to the misdirected ambition of parents as much if not more than to the teacher.

"When the program of studies is increased so as to produce mental congestion the main object of public instruction is lost. To do a few things in school and to do them well is preferable to cramming the tender mind with odds and ends of a multitude of subjects—the merest superficial knowledge which can never be made practical. But it is unhappily the case that parents too frequently lose sight of this vital principle of education and are prone to insist upon their children being pushed forward into higher studies before they are well grounded in the essential branches. They take pride in repeating the names of the various studies with which their children are vainly laboring, and disregard the necessity of obtaining a thorough knowledge of the elementary branches which must be brought into the walks of ordinary business life.

"The teachers, realizing that their efforts for the concentration of energy upon a few requisite subjects do not meet with proper appreciation, are tempted to abandon the true path of thoroughness in elementary instruction by gratifying the unreflecting vanity of parents and loading their pupils with burdens both greivous and useless. The children are taught to regard elementary studies as beneath their notice, and with the merest smattering of the most essential branches they are rushed into higher readers, geometry, algebra and other studies.

**** There is not the slightest argument in favor of making the common school all-embracing colleges. The state should not, under any circumstances, hold out any encouragement to the multiplication of unnecessary studies by offering a premium or money inducement to forsake the safe, true course of instruction. Cramming for examinations which hold out such inducements is an evil to be deplored, and it can not fail in the end to injure materially the prospects of the common schools.

"The vast field of human knowledge can not be adequately gleaned in the few years in which a child can attend school. When the pupil is hurried from one topic to another, there can not be any thorough education. The mind, like the body, requires time to digest its food.

"A methodless thinker, a pupil, a parrot repeating set lessons without understanding them, a reflector of indistinct impressions, cannot be considered as good a scholar as one who has been benefited by the liberality of the state in public instruction. As an eminent educator has said, 'The mind must be fed, judiciously fed, not gorged.' The first object of a teacher should be to develop the mental faculties of his or her pupils by making them think. The mind cannot be awakened or developed otherwise. The number of books which a boy or girl carries to school is no criterion of advancement. The most ignorant person, endowed

with wealth, can have a large library, which might as well be at the bookseller's as in his house. Fewer books and more knowledge of what they contain, may be relied upon to produce more practical educational effect.

"A few clear thoughts, adaptable at any moment and fully presenting a subject, are preferable to a mass of mere words, even if they are supposed to represent higher education. To think well and intelligently on one question by having acquired the habit of thoroughness in study is of more use in practical life than to have committed to memory the ideas of others on a score of different things and not be able to apply them.

**** Strength and vigor of mind are depreciated, if not nullified, by any system of public instruction which causes the pupil to rely entirely upon the arm of another. Such a system is that which looks only to the superstructure of public instruction to the neglect of the foundation.

"It is for such convincing reasons that I earnestly suggest that there shall be no diversion of state school moneys from the support of the elementary schools, until their needs in every district are amply supplied. When such a desirable end is attained, the liberality of the state may be well directed towards aiding those institutions of a higher order of educational pursuits which are supplements to, rather than the main body of public instruction."

STATISTICS THAT INDICATE PROGRESS.

There are 12,015 public schools in the state, of which over ninety per cent are outside the cities. There were 32,476 teachers employed in these schools, and the attendance of pupils reached 1,083,228.

The total amount paid for salaries of teachers in the public schools during the past year was \$11,883,094.94. This amount exceeds that of the previous year by \$262,028.21. To teachers employed in city schools \$7,146,693.05 were paid, an increase in the total amount of \$98,280.23. The teachers employed in country districts received \$4,736,401.89, which sum was \$163,747.98 greater than was paid them the previous year. The average yearly salary paid so each teacher employed in city schools was \$728.36, being \$12.40 less than the average each received the previous year, while that for teachers employed in the country schools was \$303.57, an increase over the previous year of \$5.05 on the average to each.

During the past year there was expended for houses and sites, furniture and repairs, the sum of \$4,061,092.98, of which \$2,688,966.92 were expended in the cities and \$1,372,126.06 in the country districts. The total sum estimated valuation of school property, which includes buildings, sites, apparatus and furniture, for the state is \$49,913,605; for cities, \$34,131,958, and for towns \$15,781,647. The average valuation of the property in the city districts is \$55,319.21, and that for country districts is \$1,348.59. The increase in total valuation during the last decade for city schools has been from \$20,375,152 to \$34,131,958, while that for country districts is from \$11,562,799 to \$15,781,647. The foregoing exhibit of the material growth of our public school system is gratifying and shows wonderful progress, but there are still greater opportunities for further development to keep abreast of the rapid advance in other activities of this age of worldly achievement.

Leading Events of the Week.

Louis Kossuth, the famous Hungarian patriot died in exile at Turin. The highest honors were paid his memory in Hungary, the United States, and elsewhere.—Admiral Walker was ordered to Honolulu and many rumors were afloat as to a Hawaiian crisis.—The new treaty with the Chinese government, now under consideration, provides that Americans in China shall register and have their photographs taken.—An explosion of dynamite in the harbor at Santander, Spain, caused a riot; the government was charged with carelessness.—Further complications are threatened in the Bering sea matter; Great Britain does not seem disposed to make the regulations adopted by the convention arbitrators operative.—The new treaty between Germany and Russia was formally ratified.—The new sixteen-inch gun for the U. S. navy successfully tested at the naval ordnance proving ground on the Potomac river.—Cataracts are said to be forming in Gladstone's eyes.

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Kipling; The Last Days of Pompeii—Sir Bulwer Lytton; Foul Play—Charles Reade; Treasure Island—Robert Louis Stevenson; The Golden Lion of Granpere—Anthony Trollope; The Tour of the World in 80 Days—Jules Verne.

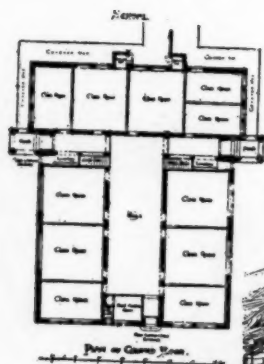
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Correspondence.

Lesson in Percentage.

Heretofore we have been dealing with fractions whose denominators represent any number of equal parts into which the unit is divided, as 3-5, 7-8, 17-30, etc., or fractions whose denominators represent the units being divided into *ten* or some product of tens equal parts, 3-10, 7-100, 17-1,000, called decimal fractions also expressed, thus .3, .07, .017. In percentage the denominator is *always* 100. Per cent. means by the hundred, and one per cent. is expressed as follows: 1-100, .01, 1%.

How many hundredths make a unit? How many one per cents make a unit or quantity?

The denominator always being the same and a number by which we can so easily multiply and divide makes percentage quite simple.

How can you multiply any number by 100? Answer.—By annexing two ciphers to a whole number, or moving the decimal point two places to the right, if it is a mixed number (whole number and decimal).

How can you divide any number by 100? Answer.—By moving the decimal point two places to the left. (Don't neglect to place the decimal point after whole numbers.)

Mental examples should be given similar to the following:

What is 1 per cent. of 6,000, ft.? 600, ft.? 60, ft.? 6, ft.?

What is 1 per cent. of \$15? \$150? \$1,500? \$15,000?

What is 2 per cent. of the same numbers?

How do you find 2 per cent.? 3 per cent.? 5 per cent.? any per cent. of a number or quantity? Answer.—Find one per cent. and multiply by the given per cent.

Continue mental drill using all numbers through 12.

When the pupils are ready for written work, and the quantity is multiplied by the rate expressed decimally, they can be easily led to see that they are multiplying by the numerator and dividing by the denominator, instead of dividing by the denominator and multiplying by the numerator as in the mental examples.

When dividing a fraction by a fraction we invert the divisor and proceed as in multiplication. Why do we invert? Inverting is equivalent to what? Why do we omit the sign of division and use the sign of multiplication?

A. DESMAKER.

This question has been often asked and answered in our columns. We answer it again for the benefit of our correspondent and the other new subscribers who are always flocking to our standard.

Take the example $\frac{2}{3} \div \frac{1}{4}$. The expression is equivalent to $\frac{2}{3} \times \frac{4}{1}$ because multiplication is the reverse of division, and $\frac{4}{1}$ is the same ratio above unity that $\frac{1}{4}$ is below unity. That is, $\frac{4}{1} : 1 :: 1 : \frac{1}{4}$. We have reversed the operation by changing the sign and reversed the action of the divisor by inversion. The result will be as if we had done neither, because to multiply the numerator of a fraction is equivalent to dividing the denominator by the same number, and *vice versa*. In other words, it makes no dif-



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ference to the result whether we divide the numerator 3 by the numerator 2 or multiply the denominator 7 by 2; or whether we divide the denominator 7 by the denominator 3 or multiply the numerator 3 by 3. If we divide numerator by numerator and denominator by denominator we (in this case) divide $\frac{3}{7}$ by 2 and multiply the result by 3 (because dividing the denominator is equivalent to multiplying the numerator). If we invert and multiply we do precisely the same thing—divide $\frac{3}{7}$ by 2 and multiply the result by 3 (because when we say 3 times 3 are 9 we mean 3 times $\frac{1}{3}$ are $\frac{1}{3}$; and when we say twice 7 are 14 we really divide the value of the fraction).

The whole relation may be tersely expressed thus: *To divide by a fraction is equivalent to multiplying by the same fraction inverted.* Try it upon whole numbers. See if $20 \div \frac{2}{3}$ is not equivalent to $20 \times \frac{3}{2}$. Do it without reducing 20 to fractional form, by reasoning thus: $20 \div 1 = 20$; $20 \div \frac{1}{2} = 3$ times as many, or 60; $20 \div \frac{2}{3} =$ half of 60 or 30; $20 \times \frac{3}{2} = 30$.

1. Is the directed process "To multiply a fraction divide the denominator by the multiplier" really a multiplicative process? 2. Where does the "taking of times," the essential feature of multiplication come in? 3. Would you teach a pupil in his first efforts to multiply by a dividing process?

R. G. B.

The process followed in the rule cited is a shorthand process; it is a compound of multiplication and "reduction" so called. Multiply $\frac{3}{7}$ by 2. The first step is to represent the multiplication thus $\frac{3}{7} \times 2$; the second is to "reduce." The 2 in the multiplier is cancelled against the 2 in the denominator. The rule if fully given would be, "Cause the multiplication to be expressed by using the sign \times , then divide both terms of the compound fraction by dividing them by the largest number they will contain." 2. The "taking of times" is merely conceived as above explained; the resulting compound fraction is what is attached. 3. This process is only employed to save time, but the young pupil rarely comprehends the step. He should be taught to multiply actually and afterward reduce. When he comprehends that he is performing one process and soon after the reverse, as he will in a few months, it will be time enough to teach him cancellation.

What is meant by mental arithmetic? Hon. Henry Houck spoke at our institute, of the good old days of mental arithmetic. I have studied Brooks' Mental, but I cannot tell what use it has been to me.

M. J. H.

Arithmetic is the clearest field in which to reason. It is therefore a good field in which to train young reasoning powers. The statement of a problem in arithmetic is a simpler matter than the statement of a problem of similar grade in any other field of thought, because its elements are easily named and there can be no doubt about their relations. Arithmetical reasoning is very susceptible to arrangement in formulas, by the use of which the pupil is supposed to acquire method and skill.

The superior advantages of arithmetic for this disciplinary purpose were exaggerated before it was known that natural science also could offer problems suited to every grade of development. In the same way, the disciplinary value of analytical grammar was relatively overestimated until constructive grammar and early familiarity with good authors came to be appreciated. Grammar and mental arithmetic were fads until the reaction came, which influenced many impulsive educators to throw them both out of the window. Both have their usefulness, but each has its place. "Brooks' Mental" probably did you more good than you credit it with doing.

As for a definition, the commonly accepted one is that of the children, "the arithmetic that you do in your mind" (without help from marks). A more valid distinction would be between mechanical arithmetic, or mere calculating of amounts, differences, quotients, and products, and rational arithmetic, or the reasoning out of problems. All arithmetic is more or less mental.

Teachers' Association Meetings.

APRIL 4-6.—Indiana Southern Association, Rockpoint.

APRIL 5-7.—Northern Indiana Teachers' Association. Twelfth Annual Meeting to be held at Frankfort, Ind. For particulars address B. F. Moore, Pres., Frankfort, Ind.; or, Calvin Moore, Chairman Executive Com., South Bend, Ind.

APRIL 5-6-7.—Joint meeting of the Northeastern and Southeastern Kansas Teachers' Associations.

April 5-6.—North Western Wisconsin Teachers' Association, Menomonie.

April 6-7.—Massachusetts Association of Classical and High School Teachers, at the Boys' Latin School Building, Boston.

May 4-5.—Fairfield County Teachers' Association, at Bridgeport, Conn.

JUNE 19-21.—Missouri State Teachers' Association at Pertle Springs, Warrensburg; Pres. Henning W. Prentiss, St. Louis, Mo.

June 26-27-28-29.—Ohio Teachers' Association, Delaware, Ohio.

JULY 6-13.—National Educational Association, at Asbury Park, N. J.

JULY 9-10-11.—New York Teachers' Association, Saratoga Springs, N. Y.

DEC. 26-27-28.—South Dakota Educational Association, at Huron. Pres., R. S. Gleason, De Smet; Rec. Sec'y, Kate Taubman, Plankinton; Corr. Sec'y, I. F. Nickell, Huron; Treas., Harry L. Bras, Mitchell.

President Lincoln

used to say that you could fool some people all the time, and all of the people some of the time, but you cannot fool all the people all of the time. This explains why people come back to the Gail Borden Eagle Brand Condensed Milk Company.

That tired feeling will not trouble you long if you take Hood's Sarsaparilla. Sold by druggists.

New Books.

Richard Harding Davis lately made a tour of the Mediterranean and has written a book descriptive of his journey and of the impressions he received, entitled *The Rulers of the Mediterranean*. Perhaps there is no more interesting region on earth to write about than this, where on one side may be seen the highest civilization of the world and on the other the outposts of barbarism. The shores of this sea do not comprise about all the civilization in existence as they once did, but they present the same variety and interest to-day that they did in the time of the ancient Greeks and Romans. The author touches, among other points, Gibraltar, Tangier, Cairo, Athens, and Constantinople. He is well-known for his power of vivid description; this may be noted particularly in the chapter on Gibraltar. He presents to our vision in well chosen language this famous rock with its frowning fortresses, hill-climbing town, red-coated soldiers, and summit often wrapped in mist. For the most part the descriptions are serious, but there is a touch of humor skilfully introduced here and there, though the author is not cynical. He sees all the good there is to see in the different peoples. His chapter on Egypt is especially interesting. In the young khedive he sees a youth of promise; Britain's dealings with Egypt are criticised in pretty strong language. His picture of Athens is an attractive one, and that of Constantinople presents some of its more salient features. The book is illustrated with fine half-tones. (Harper & Brothers, New York.)

Most of our readers are acquainted with the peculiar flavor of the humor of Bill Nye. It has a quality that the productions of none of his fellow humorists possess; in other words he is original. Mr. Nye has turned his attention to *United States History*, and the result is a large harvest of smiles. Like most other authors he presents his apology for having brought this book into being. In his preface he says: "Facts in a nude state are not liable criminally, any more than bright and beautiful children commit a felony by being born thus; but it is the solemn duty of those having the children in charge to put appropriate, healthful, and even attractive apparel upon them at the earliest possible moment * * * * We each of us, the artist and the author, respect facts. We have never, either of us, said an unkind word regarding facts; but we believe they should not be placed before the public exactly as they were born. We want to see them embellished and beautified. This is why this history is written." The author is right; he has presented facts with an accuracy that would satisfy the most noted stickler for historic truth, and yet every page is embellished with peculiar turns of thought, striking comparisons, and originality of language such as we have become accustomed to associate with Mr. Nye's productions. In making the illustrations the artist, Frederick B. Oppen, displays a sense of humor and an originality that does him the highest credit. The book is bound to be a great success. (J. B. Lippincott & Co., Philadelphia.)

The volume entitled *Good Humor* contains many selections that have become popular on account of their genuine fun-provoking qualities. The compiler, Henry Firth Wood, has had many years' experience as a talker and a reciter, and hence is a good judge of entertaining matter. Most of the material finds its first appearance in this volume; several of the selections are original with the compiler. (Penn Publishing Co., Philadelphia. Cloth, 50 cents; paper, 30 cents.)

Holden's System for Saving the Destruction of School Books is one that is worthy the attention of teachers and school boards, for it has produced the most gratifying results wherever it has been used. It consists of patent book covers, to protect school books from wear; self-binders, to repair defective bindings when the book first shows weakness, and transparent paper, to repair torn leaves. The system is in use in many towns and cities of Pennsylvania. Supt. Hanson, of China, Maine, writes: "Sample lot covers proved very valuable. They wear like leather. Shall recommend for covering all books." A covering like this saves hundreds of dollars a year, even in a moderate sized city, and is worth a trial. (Holden Patent Book Cover Co., Springfield, Mass.)

It goes without saying that the classics should be studied not merely with the purpose of learning to construe so much Greek or Latin prose or verse. If this is the entire result, valuable opportunities have been unappropriated. The literature and life of these ancient people may be studied with great profit along with the language. To give an accurate and readable book for the use of students was the aim of Harriet Waters Preston and Louise Dodge in *The Private Life of the Romans*; it is intended for the use of schools and the lower classes of colleges, but it will be widely read by students of general history and others. The editors have followed Marquardt pretty closely, although they have also used Friedländer as well as Göll's revision of the "Gallus." The subjects of the six chapters are the family; the house and everyday

life; children, slaves, guests, etc.; food and clothing; agriculture; and travel and amusements. Tables of weights, measures, money, etc., are also given, and there are numerous illustrations. (Leach, Shewell & Sanborn, Boston, New York, and Chicago. \$1.25.)

A treatise on *Rational Memory Training* has been written by B. F. Austin, A. M., principal of Alma Ladies' college, St. Thomas, Ont. The value and importance of good memory is set forth, some account of phenomenal memories is given, and some of the physiological conditions of memory stated. The aim has been to discover, as far as possible, the laws that govern the reproduction of ideas, and especial emphasis has been placed upon attention, arrangement, and natural association of ideas as aids to recollection. The importance of daily exercises of the memory, as the rational method of strengthening it, is urged upon the student. (*The Journal*, St. Thomas, Ont.)

Literary Notes.

—The *Winchester Normal Herald* is the name of a new paper started at the normal school, Winchester, Tenn. It is devoted almost entirely to news of the institution and its students and graduates.

—*Picture Lessons for Primary and Junior Grades* is a series of lessons on the Bible, each accompanied by a striking illustration, published by Thomas Whittaker, 2 & 3 Bible House, New York.

—Application has been made for a charter for a Bayard Taylor Memorial library, to be established at Kennett Square, Pennsylvania, the poet's early home, and an association has been formed to raise funds for the purpose.

—A weekly publication giving instruction in practical business book-keeping, has been started by Charles S. Macnair, Detroit, Mich. It is illustrated with practical examples from actual business experience, with guiding remarks.

—Miss Harriet Monroe is giving a series of lectures on English poets at the Newberry library, Chicago, which has attracted considerable attention. The poets chosen are Chaucer, Spenser, Shakespeare, Milton, Shelley, and the Revolutionists, and "Some of the Moderns."

—A Baptist Boys' Brigade movement has been started at Eau Claire, Wis., the object of which is to develop in the boys the instinct to take care of themselves. The virtues aimed at are self-control, obedience, reverence, purity, economy, benevolence, patriotism, and personal loyalty to Christ. The movement, one of the features of which is military drill, has for an organ a little paper called the *Sentinel*.

—Abdul Hamid of Turkey has decreed that three copies of every book and pamphlet printed or published in any language, in any part of his dominions, from the time he ascended the throne, are to be sent to the imperial palace. One copy will be placed in the new library which His Majesty is now forming, the second in a national library just founded by the Sublime Porte, and the third in the Department of the Imperial Censor.

—A paper called *The Phrenologist* has just been started at Washington, D. C. The educational department, devoted to the interests of scientific education, psychology, and the development of the science of pedagogy, founded on the principles of phrenology, is conducted by Prof. G. T. Howerston, M. S. The object is to impart a knowledge of the child—to present that psychology that takes into consideration the temperament, organic quality, size, and shape of brain, kind and quality of sense.

—A valuable series of books has just been published by A. Flanagan Chicago. These treat of *Supplementary Arithmetic* and were prepared by Prof. Wm. M. Giffin, of the Cook County normal school. Part I. is on "Lines." The diagrams in this book make independent workers of the children, require careful observation, and make the drawing of an inference an every-day occurrence. Part II. is on "Area." In this book is shown how all plane figures may be seen as a rectangle. Hence, in finding the

area of a triangle, a trapezoid, a circle, etc., the child has simply to ask, "Where is the rectangle?" instead of trying to recall a rule for each figure. Fractions are continued. Part III. is on "Percentage." Any child doing the work of this book will be ready for any ordinary business transaction. It also contains (a) Fac-simile advertisements, which are to be answered in the form of a letter. (b) Business letters and other business forms, (c) Bill heads. (d) Addressed envelopes and hundreds of practical problems.

(FOR OTHER LITERARY NOTES SEE NARROW COLUMNS.)

(Selected from OUR TIMES, monthly, 30c. a year.)

Bushmen and Their Poisoned Arrows.

The Bosjesmen or Bushmen, a race low down in the scale of civilization, inhabit various parts of Southern Africa. They are allied to the Hottentots, having the same high cheek bones, little contracted eyes, long, narrow chin, and yellow complexion, though it is usually so covered with grease and smoke that it appears almost as dark as that of the Kaffirs. In stature they are very small, averaging only a little over five feet in height. Their language, like that of the Hottentots, is noted for the peculiar click that accompanies the pronunciation of the syllables; in addition it is marked by a kind of croaking sound produced in the throat. The words of the two languages are so different that a Hottentot cannot understand a Bushman. As the language is continually changing by the invention



BUSHMAN.

of new words, even different tribes of Bushmen find it hard to understand each other, and hence they resort largely to gesture by which they can make themselves understood almost as readily as by spoken language.

Civilization has made little impression on the Bushman; he is still the wild man of the desert. Missionaries have been as unsuccessful in converting him to Christianity as others have in converting him to civilization.

The favorite home of the Bushman is a rock cavern. Sometimes he creeps into a bush and bends down the boughs so as to make a covering. This primitive house is lined with hay, dried leaves, etc. At other times the Bushman simply scratches a hole in the ground, throwing up the earth to windward. He is not at all particular about his food, as he eats all sorts of animals, besides the roots that he digs from the ground.



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His mode of killing the ostrich is very ingenious, considering the small amount of intellect he displays in other things. A hole is dug in the sand near the nest in which he conceals himself and waits for the night when he knows the bird will return. As soon as she is near enough he shoots her with one of his little poisoned arrows. At other times he dons a suit consisting of the skin of an ostrich without the legs, provided with a saddle to fit his own shoulders. He rubs his yellow legs with white chalk to make them resemble those of the birds. Thus attired, with his bow and arrows he cautiously approaches the flock until within bow-shot distance, when he drops the skin and shoots at a bird. Then he lifts up the skin again and runs away with the frightened birds. In this manner he usually manages to kill several of them.

The shaft of the Bushman's arrow is a common reed, with a piece of iron for a head. The poison usually consists of the juice of certain plants and matter extracted from the poison gland of the puff adder, cobra, and other venomous serpents. A terrible poison is also extracted from a grub, which causes fearful agony and absolute madness before death relieves the sufferer. Although the Bosjesman is so small and has such puny strength, the use of these poisoned arrows makes him dreaded both by the white man and the other native tribes.

Geographical Notes.

The Peat Fields of England.—Attention is being turned to the peat fields of the island which are very extensive. They are large enough to form a great source of wealth. Peat is very largely dug in the moorlands of Somerset, near Edington and Shapwick, between Glastonbury and Highbridge. Some of these beds have been worked for fuel from the time of the Romans, and probably earlier. In Devonshire, the Torbay submerged forest comprises peat beds that have yielded Roman remains, and that rest on clay or estuarine mud. On Dartmoor there is peat in places thirty feet thick.

Walls of European Cities.—With very few exceptions the old cities of Belgium and Holland have leveled the walls which have played such grand parts in the national histories, and they are converted into promenades after the manner of Chester and York. The walls of Antwerp and Malines have been replaced by boulevards. The old bastions of Amsterdam still remain, but the citizens of Arnheim and Utrecht and Hoorn and Zwolle and Haarlem and Leyden disport themselves on fine evenings upon the line of fortification famous in the most stirring pages of what is perhaps the most stirring of European histories.

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is the only periodical in existence that has a regular department devoting a large space to the interests of teachers of writing and drawing in public and graded schools. Endorsed and contributed to by the most eminent specialists in this line. Subscriptions may be dated back (for the present) so as to begin with October, in which the admirable course of instruction in penmanship for teachers of graded schools, by D. W. Hoff, began. Supervisor Webb's excellent lessons in drawing for teachers of public schools began in February. The question of Vertical vs. Slanting Writing has been discussed in the past half dozen issues of THE JOURNAL far more completely than it was ever discussed before. Each side has put forth its strongest champions—dozens of them—and no detail, however minute, has been left uncovered. In the same connection, THE JOURNAL has printed short letters from the School Superintendents of most of the largest cities in America.

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New Books.

No day in the year can be made more profitable and pleasurable than Arbor-day. How practical and yet how poetical is the study of trees! All schools should arrange for the celebration in some way, but the observance is so young that the literature is scanty. Alice M. Kellogg has helped to supply the demand for material by preparing a book entitled *How to Celebrate Arbor Day in the School-Room*, giving the origin of the day, hints on the planting of trees, special exercises, rose drill, recitations, and songs, and fifty quotations for the primary, grammar, and high school. This is just the book that many a teacher has been looking for. (E. L. Kellogg & Co., New York and Chicago. Price 25 cents.)

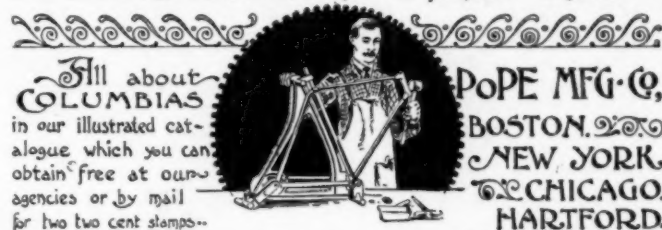
Specimens of Argumentation is the title of a little book compiled for the Readings for Students series, by George P. Baker, instructor in English at Harvard university, and non-resident lecturer at Wellesley college. It was prepared to meet the needs that have arisen in the editor's experience with classes in argumentative composition in those institutions; to furnish a small, inexpensive collection of specimens of argumentation chosen for their power as arguments rather than for their brilliancy of style. The book contains a specimen brief, such as are required of the students at Harvard, Lord Chatham's address in favor of the removal of troops from Boston, Lord Mansfield's speech in the case of Evans, Junius' letter to the printer of the *Public Advertiser*, Huxley on Evolution, Lord Erskine's defense of Gordon, and Henry Ward Beecher's Liverpool speech. (Henry Holt & Co., Teachers' price, 50 cents.)

There are times when every one feels that a small, handy dictionary would be of great service; such is especially the case with the student, teacher, or writer. *Pitman's Pocket Dictionary* is a very comprehensive one, giving a list of about all the words in every-day use, with brief definitions. Considerable pains have been taken to make it a trustworthy guide to the best modern English usage in spelling. The regular changes in the formation of words, such as the dropping of the *e* on adding *ed* or *ing* are not noted, but all irregular changes are; this allows of considerable extension of the vocabulary. The print in this book, for a pocket dictionary, is large and unusually clear. (Isaac Pitman & Sons, London and New York.)

A new book by Henry Wood has been issued under the title of *The Political Economy of Natural Law*, whose purpose is to outline a political economy which is practical and natural rather than theoretical and artificial, being a study of inherent laws and principles. In 1887 this author issued a volume entitled, "Natural Law in the Business World," which was well received and passed through several editions. The present book is not a revised edition, but substantially a new book of double the size. The titles of a few of the twenty-four chapters will give some idea of its contents. Among them are: The law of co-operation, the law of competition, combinations of capital, combinations of labor, profit sharing, socialism, economic legislation, can capital and labor be harmonized? the distribution of wealth, the centralization of business, booms and panics, money and coinage, tariffs and protection, industrial education, etc., etc. Political economy is interpreted from the standpoint of evolution and natural law. The idealism and optimism of this book strongly distinguish it from many of the pessimistic treatises of the present time. (Lee & Shepard, Boston. \$1.25.)

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A rather comprehensive history for an elementary work is that of Edgar Sanderson, M. A., late scholar of Claire college, Cambridge, entitled *History of England and the British Empire*. It is one octavo volume of 1,098 pp. within which space the author has had considerable freedom to treat all essential features of this large subject. The work is the outcome of a desire to furnish both general readers and young students of British history with a record based upon the best authorities, and written in an interesting narrative style; it is an account of the social and political development of a people comprising various nationalities, characters, and creeds, and treats of their literature, science, art, commerce, and geographical discovery, so that the student is enabled to trace their progress at every stage from Roman times to the present. Special attention has been given to constitutional history. The relations of the country to foreign powers has been traced, the reign of Queen Victoria treated on an extended scale, and the colonies dealt with separately and at considerable length. A series of maps serves to show the great territorial changes that have occurred since earlier times, and the gradual progress of the formation of the British empire in later days. (Frederick Warne & Co., London and New York.)

OUR TIMES for April contains a portrait and sketch of Cecil Rhodes, the man who has done so much to extend British authority and influence in South Africa; also portraits and sketches of Lord Rosebery, Louis Kossuth, Joseph Keppler, Cardinals Thomas and Paracciani, Dr. W. F. Poole, and Gen. Jubal A. Early. There is a map showing the territory it is proposed to include in "Greater New York." In the series of "Studies of Great Cities," Paris, the most beautiful city in the world, receives extended treatment. "A new Plan for a Steamship" (with illustration) shows what the future trans-Atlantic racer may be. Not the least in interest in the articles in this number is that entitled "The Problem of Flying" with two illustrations. There is the usually brief and comprehensive review of the events of the month, together with "Questions and Answers," "Geographical Notes," etc.

No pupil should be allowed to leave school without having an opportunity to learn the main facts of the sciences of physics and chemistry. It is safe to say that no knowledge will be of more use, as all the arts and industries are based on these sciences. The modern way—and the best way—is to teach by experiment. E. S. Ritchie & Sons, Brookline (Boston), Mass., furnish apparatus for illustration and laboratory use in schools and colleges. Their catalogue gives full descriptions of everything necessary in this line.

Little People's Dialogues is the title of a collection, most of them quite brief requiring as speakers from two to twenty-seven pupils. Everything in the book is original and specially written for it by Clara J. Denton. The dialogues are bright, and so various in character that wide room is left for selection. (The Penn Publishing Co., Philadelphia. Boards, 40 cents; paper, 25 cents.)

Chief-Justice Abraham Fornander tells about "Hawaiian Traditions" in April *Lippincott's*. H. C. Walsh explains an interesting experiment in "Co-operative House-keeping," now being made at Brookline, Mass., and George J. Varney writes learnedly of "Storage-Battery Cars." In "Heroines of the Human Comedy," Junius Henri Browne contributes a study of Balzac and his feminine characters.

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A little pamphlet has been issued by the California Grape Food Co., of Los Gatos, Cal., on "The Unfermented use of the Grape" giving its uses, value, and forms as produced and bottled by the company. It was prepared for the purpose of satisfying the many inquiries they receive from all parts of the United States and Canada, sent by physicians, ministers, representatives of the W. C. T. U., invalids, convalescents and well people, each asking for different information as to the nature, uses, and benefits to be derived from the use of various forms into which they concentrate fresh grape juice. These different preparations are used for sacramental, medicinal, and other purposes and are guaranteed to be perfectly pure. The following in behalf of the cause of temperance is taken from this pamphlet: "We would seek to supplant more conventional drinks by something more wholesome, more satisfying, more delicious and refreshing, something embodying all the principles of ripe grapes marred by nothing that would falsely stimulate or excite. The monopoly of the grape, so long controlled by wine and brandy makers, is gone, we hope, forever; and, in the new era that is dawning, the life-giving principles of the grape, in its purest condition, will enter every home as a comfort and a blessing instead of a delusion and a snare."

A cheap and yet a complete *Atlas of the World* has been issued by Mast, Crowell & Kirkpatrick, Springfield, Ohio, in their Farm and Fireside library. It is large quarto size, has 124 pages, and contains brief descriptions of all the countries of the world including the states of the United States with maps of the same; also the flags of different nations, and much historical, descriptive, and statistical matter, besides an epitome of the exemption laws of every state. The illustrations are numerous, including state seals, famous scenery, famous buildings, historical scenes, etc.

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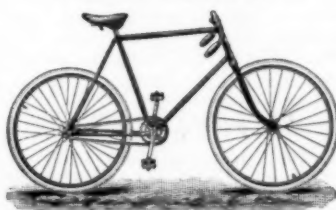
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Theodore Roosevelt has an article with a true American ring to it in the April *Forum* under the title "What Americanism Means;" and in the same number Col. Aldace F. Walker will discuss the question "Has the Inter-State Commerce Law been Beneficial?"

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